CUADERNILLO DE PREGUNTAS

Saber 3°, 5° y 9° 2015

Cuadernillo de prueba

EJEMPLO DE PREGUNTAS
Saber 5° Matemáticas

MINEDUCACIÓN

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TODOS POR UN NUEVO PAÍS
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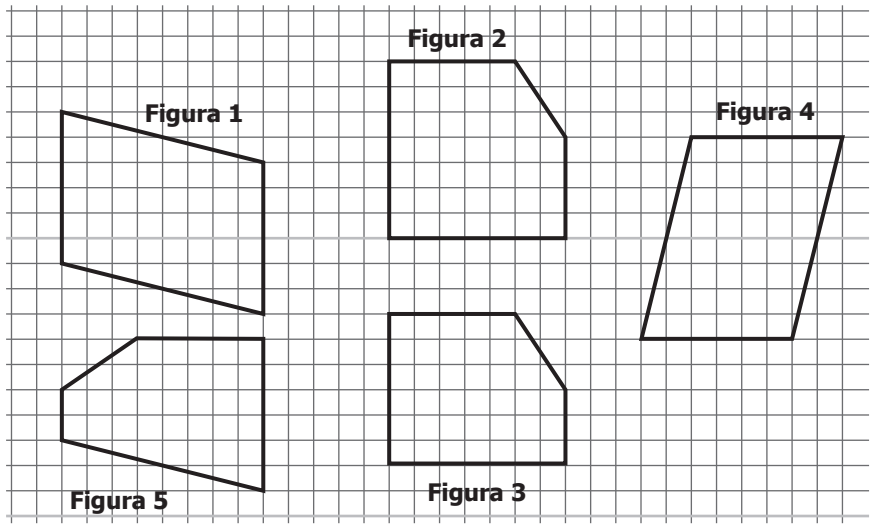
SABER 5

SABER 5 - PRUEBA DE MATEMÁTICAS

- **Pregunta 1.**

Lina dibujó estas cinco figuras en una hoja cuadriculada para luego recortarlas.



Luego de recortarlas y superponerlas, ¿qué par de figuras coinciden?

A. La 1 y la 4.

B. La 1 y la 5.

C. La 2 y la 3.

D. La 2 y la 5.

- **Estructura**

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Justificar relaciones de semejanza y congruencia entre figuras.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	51.4%	12.4%	25.4%	6.7%	4.2%	736
Antioquia	60.5%	7.5%	26.8%	4.0%	1.2%	24802
Apartadó	55.8%	9.8%	28.4%	4.8%	1.2%	1445
Arauca	61.1%	6.6%	28.2%	3.6%	0.4%	2692
Armenia	62.8%	7.3%	26.0%	2.8%	1.1%	2230
Atlántico	54.6%	9.8%	29.2%	4.9%	1.5%	5607
Barrancabermeja	59.1%	7.1%	29.2%	3.6%	1.1%	2152
Barranquilla	61.2%	7.0%	27.5%	3.4%	0.8%	10999
Bello	61.8%	5.4%	30.1%	2.1%	0.5%	4001
Bogotá, D.C.	65.7%	4.1%	27.4%	2.1%	0.7%	59879
Bolívar	50.3%	12.0%	29.3%	7.2%	1.2%	10594
Boyacá	63.7%	5.8%	27.0%	3.1%	0.5%	7877
Bucaramanga	67.6%	4.3%	25.6%	2.2%	0.4%	4497
Buenaventura	56.4%	8.3%	29.8%	4.7%	0.8%	4081
Buga	61.2%	6.5%	28.3%	2.6%	1.3%	982
Caldas	59.2%	6.2%	30.4%	3.7%	0.5%	5431
Cali	62.9%	5.9%	27.5%	2.7%	1.1%	18250
Caquetá	60.7%	8.2%	25.4%	4.1%	1.6%	2810
Cartagena	59.0%	8.1%	27.0%	4.5%	1.4%	10093
Cartago	64.0%	6.3%	27.3%	2.2%	0.2%	1174
Casanare	62.4%	6.8%	27.8%	2.5%	0.6%	3180
Cauca	61.2%	7.3%	25.7%	4.5%	1.3%	11686
Cesar	57.9%	8.4%	28.1%	4.5%	1.1%	7426
Chocó	51.9%	11.2%	27.7%	7.2%	1.9%	3398
Chía	67.8%	3.1%	26.8%	2.0%	0.3%	1433
Ciénaga	53.5%	9.6%	28.2%	6.4%	2.3%	1356
Cundinamarca	65.1%	5.5%	26.5%	2.4%	0.5%	15057
Córdoba	52.9%	10.0%	30.0%	5.9%	1.1%	12663
Cúcuta	63.3%	6.6%	26.7%	2.8%	0.6%	6776
Dosquebradas	63.4%	4.9%	29.1%	2.3%	0.4%	1637
Duitama	69.3%	3.5%	24.5%	2.5%	0.2%	1186
Envigado	69.9%	3.8%	23.6%	2.1%	0.6%	1219
Facatativá	66.3%	3.3%	27.4%	2.6%	0.3%	1254
Florencia	60.0%	8.8%	26.8%	3.7%	0.6%	1922
Floridablanca	70.1%	4.9%	22.8%	1.7%	0.6%	2345
Fusagasugá	66.4%	4.5%	24.7%	2.4%	2.1%	1056
Girardot	57.6%	6.9%	30.5%	4.4%	0.6%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	66.0%	5.3%	25.7%	2.8%	0.3%	1423
Guainía	54.0%	12.3%	24.9%	8.0%	0.9%	465
Guaviare	54.0%	8.7%	32.3%	3.2%	1.7%	872
Huila	61.4%	6.5%	28.1%	3.2%	0.9%	7408
Ibagué	64.5%	6.0%	25.7%	2.7%	1.1%	4917
Ipiales	67.0%	4.6%	26.0%	1.9%	0.6%	1387
Itagüí	64.6%	5.9%	27.1%	2.2%	0.2%	1659
Jamundí	55.2%	8.0%	30.2%	5.0%	1.5%	1101
La Guajira	55.7%	11.0%	25.6%	6.3%	1.4%	3849
Lorica	53.3%	9.5%	30.1%	6.4%	0.7%	1275
Magangué	51.0%	11.3%	29.2%	7.1%	1.4%	1386
Magdalena	53.8%	10.7%	26.9%	6.8%	1.8%	8758
Maicao	51.6%	11.3%	27.7%	7.4%	2.0%	2126
Malambo	60.7%	9.6%	24.8%	4.0%	0.9%	1015
Manizales	62.3%	5.6%	29.4%	2.4%	0.3%	2709
Medellín	61.1%	6.8%	27.8%	3.2%	1.0%	17825
Meta	58.8%	8.0%	28.9%	3.8%	0.6%	5547
Montería	57.8%	8.5%	28.2%	4.7%	0.7%	4560
Mosquera	64.6%	5.7%	26.6%	2.6%	0.5%	1229
Nariño	64.0%	6.1%	24.3%	3.3%	2.3%	9348
Neiva	62.6%	5.6%	28.6%	2.6%	0.6%	3487
Norte de Santander	62.2%	7.2%	26.6%	3.3%	0.7%	7482
Palmira	63.8%	5.3%	27.7%	2.5%	0.7%	2732
Pasto	64.7%	5.0%	26.5%	2.5%	1.3%	3724
Pereira	62.3%	5.1%	29.0%	2.5%	1.1%	3667
Piedecuesta	64.7%	4.8%	26.0%	3.4%	1.0%	1279
Pitalito	64.6%	5.8%	24.1%	4.1%	1.5%	1501
Popayán	66.1%	5.3%	25.6%	2.3%	0.7%	2631
Putumayo	61.2%	7.4%	26.2%	4.0%	1.2%	3619
Quibdó	50.8%	8.0%	33.9%	4.8%	2.4%	1123
Quindío	62.3%	6.7%	26.6%	3.2%	1.3%	2086
Riohacha	54.0%	9.9%	28.8%	5.9%	1.4%	2439
Rionegro	65.9%	5.5%	25.2%	3.0%	0.4%	1000
Risaralda	60.9%	6.2%	27.9%	3.5%	1.4%	2444
Sabaneta	65.4%	3.3%	26.9%	1.3%	3.1%	480
Sahagún	57.6%	9.2%	28.8%	3.8%	0.6%	1175
San Andrés	55.3%	9.0%	31.6%	3.1%	1.1%	456
Santa Marta	56.5%	7.6%	30.9%	3.9%	1.1%	5712
Santander	64.1%	6.2%	26.0%	3.1%	0.6%	7595

Continúa en la siguiente página

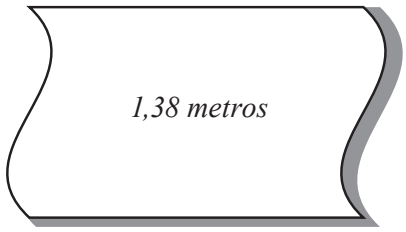
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	57.4%	8.5%	29.1%	4.3%	0.7%	2977
Soacha	61.6%	5.4%	30.0%	2.4%	0.7%	5332
Sogamoso	69.4%	4.0%	24.5%	2.0%	0.1%	1357
Soledad	63.2%	6.2%	26.6%	3.0%	1.0%	4982
Sucre	52.8%	10.0%	30.2%	6.0%	1.0%	7541
Tolima	59.6%	8.0%	27.7%	3.7%	0.9%	9164
Tuluá	61.8%	5.6%	29.1%	3.1%	0.4%	2044
Tumaco	55.2%	11.6%	24.4%	6.5%	2.2%	2344
Tunja	69.3%	4.7%	24.4%	1.4%	0.2%	1636
Turbo	50.9%	11.0%	30.9%	6.3%	0.9%	2127
Uribia	47.7%	15.3%	24.6%	10.2%	2.3%	1278
Valle del Cauca	60.3%	6.9%	28.5%	3.7%	0.7%	7967
Valledupar	58.8%	7.4%	27.8%	4.4%	1.5%	4933
Vaupés	47.0%	13.2%	28.4%	10.0%	1.4%	440
Vichada	55.8%	9.5%	26.1%	6.9%	1.6%	788
Villavicencio	65.8%	5.4%	26.2%	2.0%	0.6%	5053
Yopal	64.8%	7.4%	25.2%	2.4%	0.2%	1890
Yumbo	61.4%	5.6%	29.6%	2.9%	0.6%	1259
Zipaquirá	69.2%	4.7%	24.3%	1.7%	0.2%	1260
Colombia	61.0%	6.9%	27.5%	3.6%	1.0%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 2.

En un juego, un niño debe formular una pregunta que corresponda a la respuesta que lea en un papelito que saca de una bolsa.

Jaime está jugando y sacó este papelito:



La pregunta que debe formular Jaime es:

A. ¿Cuántos años tienes?
B. ¿Cuál es tu estatura?
C. ¿Cuál es tu peso?
D. ¿Cuántos hermanos tienes?

• Estructura

Competencia	Comunicación
Componente	Espacial - Métrico
Afirmación	Establecer relaciones entre los atributos mensurables de un objeto o evento y sus respectivas magnitudes.
Nivel de desempeño	Mínimo
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	12.8%	62.4%	13.2%	7.7%	3.9%	736
Antioquia	7.6%	75.1%	11.6%	4.6%	1.2%	24802
Apartadó	8.2%	67.3%	16.6%	6.8%	1.2%	1445
Arauca	6.7%	78.7%	10.1%	3.9%	0.6%	2692
Armenia	5.8%	80.0%	10.2%	2.6%	1.3%	2230
Atlántico	9.6%	66.2%	15.5%	7.0%	1.7%	5607
Barrancabermeja	6.1%	76.4%	13.1%	3.5%	0.9%	2152
Barranquilla	6.3%	76.4%	12.4%	3.9%	1.0%	10999
Bello	5.0%	83.1%	9.0%	2.4%	0.5%	4001
Bogotá, D.C.	3.6%	84.4%	9.3%	1.9%	0.8%	59879
Bolívar	12.5%	60.3%	16.6%	9.0%	1.7%	10594
Boyacá	5.7%	81.2%	9.2%	3.3%	0.6%	7877
Bucaramanga	3.7%	86.3%	7.9%	1.8%	0.4%	4497
Buenaventura	10.8%	66.3%	14.9%	6.9%	1.1%	4081
Buga	6.1%	78.0%	12.0%	2.7%	1.1%	982
Caldas	6.1%	80.4%	9.9%	3.1%	0.5%	5431
Cali	5.3%	81.1%	10.2%	2.4%	1.0%	18250
Caquetá	8.2%	73.0%	11.9%	5.3%	1.6%	2810
Cartagena	8.5%	71.5%	13.2%	5.3%	1.5%	10093
Cartago	5.9%	79.0%	11.5%	3.2%	0.4%	1174
Casanare	6.1%	77.8%	11.6%	3.8%	0.8%	3180
Cauca	9.2%	73.3%	9.9%	5.9%	1.6%	11686
Cesar	9.5%	69.0%	13.5%	6.8%	1.2%	7426
Chocó	13.3%	57.7%	15.0%	11.5%	2.5%	3398
Chía	2.4%	88.6%	7.3%	1.3%	0.3%	1433
Ciénaga	9.9%	64.7%	15.7%	7.4%	2.3%	1356
Cundinamarca	4.7%	82.7%	9.5%	2.6%	0.5%	15057
Córdoba	11.0%	65.4%	14.0%	8.3%	1.3%	12663
Cúcuta	4.6%	82.0%	10.4%	2.4%	0.6%	6776
Dosquebradas	4.0%	86.9%	7.5%	1.5%	0.1%	1637
Duitama	3.8%	84.2%	10.1%	1.6%	0.3%	1186
Envigado	2.2%	88.7%	7.7%	1.1%	0.2%	1219
Facatativá	4.7%	84.4%	8.6%	1.8%	0.5%	1254
Florencia	7.8%	75.7%	11.9%	3.6%	1.1%	1922
Floridablanca	2.9%	86.6%	8.7%	1.4%	0.5%	2345
Fusagasugá	3.5%	81.6%	10.0%	2.6%	2.3%	1056
Girardot	6.7%	79.8%	10.3%	2.6%	0.6%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	5.2%	82.2%	9.9%	2.3%	0.4%	1423
Guainía	16.8%	61.1%	13.3%	6.5%	2.4%	465
Guaviare	8.4%	73.7%	11.6%	4.8%	1.5%	872
Huila	6.0%	79.5%	10.1%	3.6%	0.9%	7408
Ibagué	4.1%	82.4%	9.8%	2.5%	1.1%	4917
Ipiales	4.4%	83.2%	8.9%	3.2%	0.4%	1387
Itagüí	4.8%	81.2%	11.2%	2.5%	0.4%	1659
Jamundí	6.8%	74.4%	12.8%	4.2%	1.8%	1101
La Guajira	11.8%	64.1%	15.3%	7.6%	1.3%	3849
Lorica	10.8%	67.1%	12.7%	8.8%	0.6%	1275
Magangué	9.9%	63.9%	16.6%	8.2%	1.5%	1386
Magdalena	12.1%	63.0%	14.3%	8.7%	2.0%	8758
Maicao	11.0%	62.3%	16.5%	8.2%	2.0%	2126
Malambo	8.5%	71.3%	13.2%	5.9%	1.1%	1015
Manizales	3.4%	84.9%	9.9%	1.5%	0.3%	2709
Medellín	5.7%	78.2%	11.7%	3.3%	1.1%	17825
Meta	6.8%	77.0%	11.5%	4.0%	0.7%	5547
Montería	9.1%	70.7%	13.6%	5.7%	1.0%	4560
Mosquera	3.8%	84.6%	9.0%	2.0%	0.7%	1229
Nariño	6.8%	77.3%	9.1%	4.3%	2.4%	9348
Neiva	5.0%	81.2%	11.0%	2.2%	0.6%	3487
Norte de Santander	6.0%	79.6%	10.2%	3.4%	0.8%	7482
Palmira	4.5%	83.1%	9.7%	1.9%	0.9%	2732
Pasto	4.1%	82.4%	10.3%	2.3%	1.0%	3724
Pereira	4.4%	83.8%	8.6%	2.0%	1.1%	3667
Piedecuesta	4.3%	83.3%	9.3%	2.1%	1.0%	1279
Pitalito	4.5%	79.9%	11.3%	2.7%	1.5%	1501
Popayán	5.4%	81.0%	10.6%	2.2%	0.8%	2631
Putumayo	7.3%	73.9%	12.4%	5.2%	1.3%	3619
Quibdó	11.1%	60.1%	20.5%	5.4%	2.8%	1123
Quindío	6.3%	80.8%	8.6%	2.9%	1.4%	2086
Riohacha	9.6%	65.9%	14.8%	7.5%	2.1%	2439
Rionegro	4.7%	82.8%	9.8%	2.4%	0.3%	1000
Risaralda	8.1%	77.4%	9.5%	3.3%	1.7%	2444
Sabaneta	3.3%	84.8%	6.5%	2.5%	2.9%	480
Sahagún	8.0%	74.0%	12.3%	5.2%	0.5%	1175
San Andrés	7.0%	70.0%	18.0%	3.9%	1.1%	456
Santa Marta	8.6%	73.5%	12.4%	4.4%	1.1%	5712
Santander	5.4%	81.2%	9.2%	3.5%	0.7%	7595

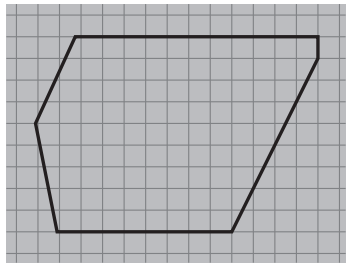
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	7.2%	71.4%	14.7%	5.7%	1.0%	2977
Soacha	4.8%	80.3%	11.8%	2.3%	0.7%	5332
Sogamoso	3.5%	85.6%	9.8%	1.1%	0.1%	1357
Soledad	5.9%	76.5%	12.6%	4.0%	1.1%	4982
Sucre	11.8%	64.6%	14.2%	8.2%	1.1%	7541
Tolima	8.6%	74.0%	11.3%	5.0%	1.1%	9164
Tuluá	5.1%	80.7%	11.3%	2.4%	0.4%	2044
Tumaco	13.4%	56.2%	16.8%	11.0%	2.6%	2344
Tunja	2.4%	86.2%	9.4%	1.7%	0.3%	1636
Turbo	12.7%	60.9%	16.0%	9.2%	1.2%	2127
Uribia	12.5%	50.9%	20.0%	13.4%	3.1%	1278
Valle del Cauca	6.8%	78.3%	10.7%	3.4%	0.8%	7967
Valledupar	7.3%	73.1%	13.2%	4.6%	1.8%	4933
Vaupés	14.1%	57.5%	16.6%	10.0%	1.8%	440
Vichada	12.1%	68.0%	11.7%	6.2%	2.0%	788
Villavicencio	4.0%	83.0%	9.9%	2.3%	0.8%	5053
Yopal	5.4%	80.5%	10.5%	3.2%	0.4%	1890
Yumbo	6.1%	78.6%	11.4%	2.9%	1.0%	1259
Zipaquirá	3.9%	83.7%	9.8%	2.5%	0.2%	1260
Colombia	6.8%	76.7%	11.3%	4.2%	1.1%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 3.

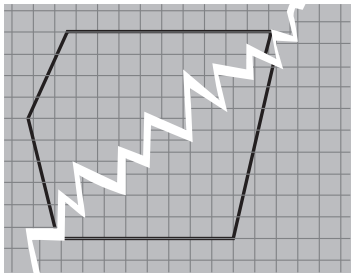
Arturo dibujó esta figura en una hoja



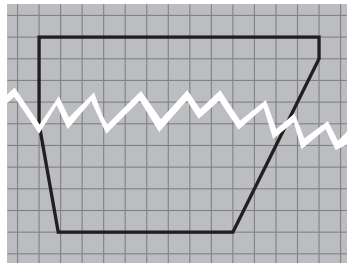
Figura

Accidentalmente, Arturo rompió la hoja en dos partes, ¿cuáles son estas?

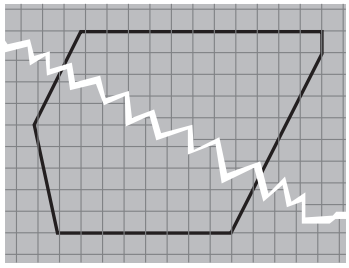
A.



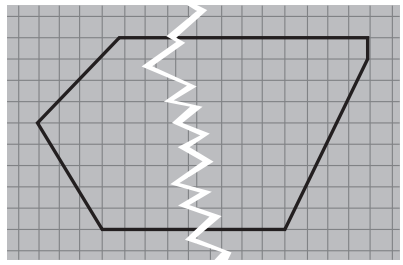
B.



C.



D.



• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Construir y descomponer figuras planas y sólidos a partir de condiciones dadas.
Nivel de desempeño	Mínimo
Respuesta Correcta	C

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	11.8%	10.3%	58.6%	14.8%	4.5%	736
Antioquia	16.2%	6.8%	66.1%	9.4%	1.5%	24802
Apartadó	13.9%	7.6%	64.6%	12.5%	1.3%	1445
Arauca	12.0%	5.2%	73.0%	8.8%	0.9%	2692
Armenia	13.3%	4.9%	72.6%	7.9%	1.3%	2230
Atlántico	15.4%	7.5%	65.7%	9.6%	1.7%	5607
Barrancabermeja	12.8%	5.1%	71.8%	8.9%	1.4%	2152
Barranquilla	13.6%	5.3%	70.3%	9.7%	1.1%	10999
Bello	15.7%	5.0%	71.2%	7.4%	0.7%	4001
Bogotá, D.C.	12.5%	3.4%	76.6%	6.6%	0.8%	59879
Bolívar	15.5%	9.6%	60.6%	12.6%	1.7%	10594
Boyacá	15.1%	5.2%	70.6%	8.4%	0.7%	7877
Bucaramanga	13.6%	2.4%	77.1%	6.4%	0.5%	4497
Buenaventura	14.6%	6.7%	66.3%	10.9%	1.6%	4081
Buga	14.8%	6.6%	69.9%	7.6%	1.1%	982
Caldas	14.8%	5.4%	71.7%	7.4%	0.6%	5431
Cali	12.6%	4.4%	73.8%	7.9%	1.2%	18250
Caquetá	14.8%	7.3%	66.8%	9.1%	2.0%	2810
Cartagena	14.6%	7.2%	66.1%	10.5%	1.6%	10093
Cartago	14.4%	5.9%	71.6%	7.8%	0.3%	1174
Casanare	14.7%	5.7%	68.1%	10.9%	0.7%	3180
Cauca	13.2%	6.5%	70.2%	8.5%	1.7%	11686
Cesar	13.5%	7.4%	66.3%	11.2%	1.5%	7426
Chocó	15.4%	10.6%	60.3%	11.2%	2.6%	3398
Chía	11.0%	2.6%	79.1%	6.4%	1.0%	1433
Ciénaga	14.3%	8.6%	63.8%	10.6%	2.7%	1356
Cundinamarca	13.7%	4.3%	73.5%	7.8%	0.6%	15057
Córdoba	15.5%	8.9%	61.7%	12.6%	1.3%	12663
Cúcuta	14.2%	4.7%	72.0%	8.3%	0.6%	6776
Dosquebradas	14.6%	3.4%	75.6%	6.1%	0.3%	1637
Duitama	16.4%	5.1%	69.8%	8.2%	0.4%	1186
Envigado	14.4%	5.0%	71.9%	8.0%	0.7%	1219
Facatativá	13.8%	4.0%	72.5%	9.4%	0.3%	1254
Florencia	14.2%	6.0%	70.3%	8.3%	1.2%	1922
Floridablanca	14.3%	3.9%	75.3%	6.1%	0.5%	2345
Fusagasugá	11.1%	4.1%	75.8%	6.9%	2.2%	1056
Girardot	14.4%	4.4%	72.9%	7.9%	0.3%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	14.4%	4.5%	73.9%	6.8%	0.4%	1423
Guainía	14.8%	6.9%	58.5%	16.3%	3.4%	465
Guaviare	15.6%	6.2%	68.5%	7.9%	1.8%	872
Huila	13.7%	4.8%	71.7%	8.8%	1.0%	7408
Ibagué	13.7%	4.5%	73.0%	7.6%	1.2%	4917
Ipiales	13.0%	4.5%	72.7%	9.2%	0.6%	1387
Itagüí	16.2%	6.3%	65.6%	11.5%	0.5%	1659
Jamundí	13.4%	7.6%	68.2%	8.9%	1.8%	1101
La Guajira	15.7%	8.3%	62.2%	12.0%	1.7%	3849
Lorica	15.5%	9.0%	64.0%	10.7%	0.9%	1275
Magangué	15.7%	10.0%	62.8%	10.1%	1.4%	1386
Magdalena	15.0%	8.1%	63.3%	11.3%	2.3%	8758
Maicao	16.5%	10.0%	58.7%	12.5%	2.4%	2126
Malambo	11.7%	6.0%	69.7%	11.3%	1.3%	1015
Manizales	16.1%	4.8%	71.7%	7.2%	0.3%	2709
Medellín	16.5%	6.5%	66.6%	9.1%	1.3%	17825
Meta	14.1%	5.7%	70.4%	8.8%	1.0%	5547
Montería	15.1%	7.7%	64.9%	11.1%	1.2%	4560
Mosquera	12.9%	3.1%	75.6%	7.7%	0.7%	1229
Nariño	12.6%	5.6%	70.4%	8.8%	2.6%	9348
Neiva	14.2%	3.9%	73.4%	7.9%	0.7%	3487
Norte de Santander	14.9%	5.6%	70.2%	8.5%	0.8%	7482
Palmira	12.1%	4.2%	74.9%	7.8%	1.0%	2732
Pasto	11.8%	3.8%	75.2%	8.0%	1.2%	3724
Pereira	13.5%	3.7%	74.7%	6.8%	1.3%	3667
Piedecuesta	14.6%	4.4%	72.6%	7.1%	1.3%	1279
Pitalito	13.1%	3.9%	73.8%	7.5%	1.7%	1501
Popayán	12.8%	4.0%	74.5%	8.0%	0.7%	2631
Putumayo	13.5%	6.5%	69.2%	9.5%	1.2%	3619
Quibdó	15.9%	6.1%	65.7%	9.4%	2.8%	1123
Quindío	12.9%	4.0%	74.4%	7.4%	1.3%	2086
Riohacha	14.7%	8.8%	63.2%	11.0%	2.2%	2439
Rionegro	14.4%	6.0%	72.9%	6.1%	0.6%	1000
Risaralda	13.5%	5.8%	70.7%	8.4%	1.7%	2444
Sabaneta	13.8%	4.2%	71.5%	6.9%	3.8%	480
Sahagún	13.6%	6.8%	67.2%	11.6%	0.8%	1175
San Andrés	13.2%	11.0%	64.9%	9.2%	1.8%	456
Santa Marta	13.8%	5.8%	70.2%	8.8%	1.4%	5712
Santander	14.8%	4.9%	71.6%	8.1%	0.7%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	13.7%	6.8%	69.5%	9.0%	1.0%	2977
Soacha	14.3%	4.6%	72.3%	7.9%	0.9%	5332
Sogamoso	13.3%	3.4%	75.4%	7.7%	0.2%	1357
Soledad	13.9%	5.0%	71.4%	8.6%	1.2%	4982
Sucre	14.1%	8.7%	64.6%	11.2%	1.4%	7541
Tolima	15.9%	5.9%	68.0%	9.0%	1.1%	9164
Tuluá	13.0%	3.9%	75.4%	7.1%	0.6%	2044
Tumaco	15.8%	11.0%	57.5%	13.1%	2.6%	2344
Tunja	11.6%	3.4%	76.0%	8.9%	0.1%	1636
Turbo	16.0%	10.1%	60.5%	12.2%	1.2%	2127
Uribia	16.2%	13.5%	48.1%	19.0%	3.2%	1278
Valle del Cauca	13.3%	5.9%	72.6%	7.2%	0.9%	7967
Valledupar	14.2%	5.8%	67.8%	10.5%	1.8%	4933
Vaupés	18.6%	11.1%	49.3%	18.4%	2.5%	440
Vichada	14.0%	7.5%	62.3%	13.8%	2.4%	788
Villavicencio	13.0%	4.7%	74.0%	7.6%	0.8%	5053
Yopal	14.9%	5.3%	72.0%	7.5%	0.3%	1890
Yumbo	12.9%	4.4%	73.2%	8.7%	0.7%	1259
Zipaquirá	12.2%	4.0%	76.0%	7.1%	0.7%	1260
Colombia	14.1%	5.7%	70.1%	8.9%	1.2%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 4.

En un noticiero se mencionó que el 48% de las personas en una ciudad son hombres. Otra forma de expresar este porcentaje es

A. 48 de cada 100 personas son hombres.

B. 48 de cada 10 personas son hombres.

C. 1 de cada 48 personas es hombre.

D. 100 de cada 48 personas son hombres.

• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Reconocer e interpretar números naturales y fracciones en diferentes contextos.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	40.9%	14.8%	19.3%	20.7%	4.3%	736
Antioquia	54.8%	12.5%	14.8%	16.5%	1.4%	24802
Apartadó	50.9%	14.2%	15.8%	17.6%	1.5%	1445
Arauca	59.4%	11.0%	12.5%	16.1%	0.9%	2692
Armenia	59.6%	10.9%	12.1%	16.0%	1.4%	2230
Atlántico	49.0%	14.3%	17.6%	16.9%	2.2%	5607
Barrancabermeja	61.1%	10.4%	12.2%	14.7%	1.6%	2152
Barranquilla	59.5%	11.3%	13.3%	14.7%	1.2%	10999
Bello	64.1%	9.8%	11.0%	14.2%	0.8%	4001
Bogotá, D.C.	68.7%	7.8%	8.7%	13.8%	1.0%	59879
Bolívar	42.5%	16.4%	19.1%	20.0%	2.0%	10594
Boyacá	61.7%	10.3%	11.7%	15.6%	0.7%	7877
Bucaramanga	70.1%	7.5%	8.5%	13.3%	0.7%	4497
Buenaventura	51.9%	13.1%	17.2%	16.1%	1.8%	4081
Buga	61.5%	10.3%	11.8%	15.4%	1.0%	982
Caldas	59.8%	10.9%	13.8%	14.8%	0.8%	5431
Cali	62.5%	9.8%	11.7%	14.7%	1.4%	18250
Caquetá	49.4%	13.5%	17.4%	17.6%	2.2%	2810
Cartagena	54.8%	12.6%	14.4%	16.3%	2.0%	10093
Cartago	61.4%	10.5%	12.1%	15.7%	0.3%	1174
Casanare	56.9%	12.0%	13.5%	16.7%	0.8%	3180
Cauca	53.7%	12.5%	16.1%	15.7%	2.0%	11686
Cesar	51.1%	13.6%	16.0%	17.7%	1.6%	7426
Chocó	45.4%	15.2%	17.6%	19.4%	2.4%	3398
Chía	72.2%	6.3%	8.7%	12.1%	0.7%	1433
Ciénaga	48.8%	13.6%	17.8%	16.9%	2.8%	1356
Cundinamarca	64.7%	9.2%	10.5%	14.9%	0.7%	15057
Córdoba	46.0%	15.4%	17.5%	19.5%	1.7%	12663
Cúcuta	63.8%	10.0%	10.4%	15.0%	0.9%	6776
Dosquebradas	67.0%	9.0%	11.2%	12.2%	0.6%	1637
Duitama	72.2%	7.8%	7.8%	12.0%	0.3%	1186
Envigado	78.7%	4.6%	7.1%	9.3%	0.4%	1219
Facatativá	66.3%	7.3%	10.8%	15.4%	0.3%	1254
Florencia	52.4%	13.1%	15.2%	17.6%	1.7%	1922
Floridablanca	71.6%	7.1%	7.5%	13.0%	0.8%	2345
Fusagasugá	66.1%	7.3%	9.9%	14.2%	2.5%	1056
Girardot	59.2%	12.7%	12.6%	14.8%	0.8%	907

Continúa en la siguiente página

ETC	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	62.9%	9.4%	11.2%	16.0%	0.6%	1423
Guainía	44.5%	13.1%	19.6%	21.3%	1.5%	465
Guaviare	51.7%	12.0%	15.0%	19.5%	1.7%	872
Huila	58.6%	11.6%	12.9%	15.8%	1.1%	7408
Ibagué	62.3%	9.9%	11.5%	15.1%	1.3%	4917
Ipiales	63.6%	8.4%	11.5%	15.9%	0.6%	1387
Itagüí	64.9%	10.6%	11.5%	12.4%	0.6%	1659
Jamundí	51.3%	12.3%	15.3%	19.1%	2.0%	1101
La Guajira	47.9%	14.3%	17.3%	18.8%	1.7%	3849
Lorica	47.3%	16.4%	16.6%	18.6%	1.1%	1275
Magangué	40.4%	16.7%	21.1%	19.8%	2.0%	1386
Magdalena	47.0%	14.7%	17.4%	18.5%	2.4%	8758
Maicao	42.9%	15.7%	18.0%	20.8%	2.6%	2126
Malambo	57.4%	11.5%	14.5%	15.2%	1.4%	1015
Manizales	66.6%	8.8%	10.2%	14.0%	0.5%	2709
Medellín	61.0%	10.2%	11.6%	15.8%	1.4%	17825
Meta	56.8%	11.8%	14.0%	16.4%	1.0%	5547
Montería	50.8%	14.6%	14.5%	18.9%	1.2%	4560
Mosquera	66.1%	9.0%	10.2%	14.0%	0.7%	1229
Nariño	59.0%	10.5%	12.7%	14.9%	2.8%	9348
Neiva	59.9%	10.5%	12.3%	16.6%	0.7%	3487
Norte de Santander	59.8%	11.1%	13.2%	14.9%	1.0%	7482
Palmira	64.4%	9.0%	11.5%	14.0%	1.1%	2732
Pasto	66.8%	8.6%	9.4%	13.9%	1.3%	3724
Pereira	64.8%	8.4%	12.6%	12.8%	1.4%	3667
Piedecuesta	65.8%	9.3%	9.1%	14.4%	1.4%	1279
Pitalito	59.3%	9.5%	12.3%	16.9%	2.0%	1501
Popayán	64.5%	10.3%	11.1%	13.0%	1.1%	2631
Putumayo	55.1%	13.1%	13.8%	16.5%	1.5%	3619
Quibdó	50.9%	13.9%	14.2%	17.5%	3.4%	1123
Quindío	59.9%	10.4%	12.7%	15.3%	1.7%	2086
Riohacha	47.3%	13.2%	17.5%	19.4%	2.6%	2439
Rionegro	67.0%	7.3%	10.3%	14.5%	0.9%	1000
Risaralda	57.9%	11.3%	12.7%	16.3%	1.7%	2444
Sabaneta	70.2%	5.4%	9.4%	11.9%	3.1%	480
Sahagún	55.4%	14.3%	13.5%	16.1%	0.7%	1175
San Andrés	50.4%	14.9%	17.1%	16.2%	1.3%	456
Santa Marta	56.7%	11.3%	14.7%	16.1%	1.3%	5712
Santander	63.1%	10.2%	11.0%	15.0%	0.8%	7595

Continúa en la siguiente página

ETC	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	53.3%	13.8%	14.1%	17.5%	1.2%	2977
Soacha	64.5%	10.0%	10.4%	14.1%	1.0%	5332
Sogamoso	69.6%	9.2%	7.5%	13.3%	0.4%	1357
Soledad	61.1%	10.3%	12.3%	15.1%	1.3%	4982
Sucre	45.8%	15.6%	16.8%	20.2%	1.5%	7541
Tolima	52.3%	13.4%	15.4%	17.7%	1.3%	9164
Tuluá	61.4%	11.0%	12.3%	14.5%	0.7%	2044
Tumaco	42.5%	15.9%	19.8%	18.9%	2.9%	2344
Tunja	73.6%	6.4%	8.0%	11.7%	0.4%	1636
Turbo	41.0%	17.4%	18.9%	21.0%	1.6%	2127
Uribia	35.4%	17.1%	22.1%	22.1%	3.2%	1278
Valle del Cauca	57.5%	11.6%	14.3%	15.5%	1.1%	7967
Valledupar	55.9%	11.6%	14.4%	16.3%	1.8%	4933
Vaupés	36.8%	15.5%	22.5%	23.6%	1.6%	440
Vichada	46.3%	14.2%	17.1%	19.9%	2.4%	788
Villavicencio	65.8%	8.8%	10.2%	14.0%	1.3%	5053
Yopal	59.4%	10.7%	10.9%	17.9%	1.0%	1890
Yumbo	61.1%	9.8%	15.0%	13.6%	0.5%	1259
Zipaquirá	69.0%	8.6%	7.9%	13.9%	0.6%	1260
Colombia	58.7%	11.2%	13.0%	15.8%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 5.

Utilizando su reloj, Camilo supo exactamente que una pelota se demoró 2 segundos, 3 décimas y 5 centésimas en caer al suelo. ¿Cuál fue el reloj que Camilo utilizó?

A.

B.

C.

D.

• Estructura

Competencia	Comunicación
Componente	Espacial - Métrico
Afirmación	Establecer relaciones entre los atributos mensurables de un objeto o evento y sus respectivas magnitudes.
Nivel de desempeño	Mínimo
Respuesta Correcta	D

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	13.0%	21.7%	11.4%	49.2%	4.6%	736
Antioquia	13.6%	19.2%	10.4%	55.3%	1.5%	24802
Apartadó	15.8%	21.2%	11.1%	50.2%	1.7%	1445
Arauca	12.8%	18.7%	8.4%	59.4%	0.7%	2692
Armenia	15.1%	15.4%	9.4%	58.4%	1.7%	2230
Atlántico	13.9%	21.5%	11.6%	51.1%	1.9%	5607
Barrancabermeja	14.5%	15.2%	9.6%	59.4%	1.3%	2152
Barranquilla	14.3%	16.6%	9.4%	58.4%	1.2%	10999
Bello	15.2%	13.2%	8.7%	62.1%	0.8%	4001
Bogotá, D.C.	11.8%	12.8%	7.3%	67.2%	1.0%	59879
Bolívar	14.7%	24.8%	13.0%	45.6%	1.8%	10594
Boyacá	11.1%	19.1%	9.9%	59.2%	0.7%	7877
Bucaramanga	13.0%	12.7%	7.9%	65.6%	0.7%	4497
Buenaventura	14.8%	21.2%	10.2%	52.3%	1.4%	4081
Buga	13.1%	15.0%	9.2%	61.6%	1.1%	982
Caldas	12.8%	17.5%	8.8%	60.2%	0.7%	5431
Cali	13.0%	14.3%	7.7%	63.6%	1.4%	18250
Caquetá	11.7%	21.4%	10.4%	54.5%	2.0%	2810
Cartagena	13.9%	18.8%	10.4%	55.1%	1.8%	10093
Cartago	12.7%	16.1%	11.8%	58.6%	0.9%	1174
Casanare	12.6%	20.2%	10.1%	56.1%	1.0%	3180
Cauca	11.4%	19.6%	8.4%	58.7%	2.0%	11686
Cesar	12.3%	18.9%	10.1%	57.1%	1.5%	7426
Chocó	12.5%	25.0%	12.6%	47.1%	2.7%	3398
Chía	9.0%	10.7%	5.9%	74.0%	0.5%	1433
Ciénaga	14.7%	21.6%	10.2%	50.7%	2.8%	1356
Cundinamarca	12.0%	15.9%	8.5%	62.9%	0.7%	15057
Córdoba	14.2%	22.6%	12.4%	49.2%	1.6%	12663
Cúcuta	14.9%	15.7%	8.6%	59.9%	0.8%	6776
Dosquebradas	12.5%	15.3%	7.9%	64.0%	0.4%	1637
Duitama	10.9%	14.9%	6.5%	67.4%	0.3%	1186
Envigado	9.5%	10.1%	6.8%	73.3%	0.2%	1219
Facatativá	12.8%	13.6%	9.0%	64.0%	0.6%	1254
Florencia	14.0%	20.0%	10.6%	54.1%	1.3%	1922
Floridablanca	12.8%	10.8%	7.2%	68.5%	0.6%	2345
Fusagasugá	10.9%	13.3%	6.1%	67.5%	2.3%	1056
Girardot	14.8%	16.2%	9.8%	58.2%	1.0%	907
Girón	13.2%	15.3%	7.3%	63.5%	0.7%	1423
Guainía	11.8%	23.7%	11.6%	50.8%	2.2%	465

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Guaviare	11.1%	23.6%	12.3%	51.3%	1.7%	872
Huila	11.2%	17.9%	9.1%	60.8%	1.0%	7408
Ibagué	11.9%	14.4%	8.4%	64.0%	1.3%	4917
Ipiales	11.6%	16.9%	8.7%	61.9%	0.8%	1387
Itagüí	13.9%	15.6%	9.3%	60.6%	0.6%	1659
Jamundí	14.2%	18.2%	9.3%	56.4%	2.0%	1101
La Guajira	11.7%	23.5%	11.2%	51.7%	1.8%	3849
Lorica	15.4%	22.8%	13.5%	47.1%	1.2%	1275
Magangué	16.5%	24.0%	13.1%	44.7%	1.9%	1386
Magdalena	11.9%	22.5%	11.6%	51.4%	2.5%	8758
Maicao	13.6%	24.3%	12.4%	46.9%	2.8%	2126
Malambo	13.0%	20.7%	9.1%	56.3%	1.0%	1015
Manizales	11.8%	13.9%	7.6%	66.2%	0.6%	2709
Medellín	15.1%	15.8%	10.8%	56.9%	1.4%	17825
Meta	13.7%	18.7%	10.2%	56.5%	1.0%	5547
Montería	15.0%	21.1%	11.9%	50.7%	1.3%	4560
Mosquera	12.8%	12.1%	7.9%	66.4%	0.8%	1229
Nariño	11.0%	18.7%	7.4%	60.0%	2.9%	9348
Neiva	14.1%	16.4%	7.8%	60.7%	1.0%	3487
Norte de Santander	11.5%	17.1%	8.6%	61.8%	0.9%	7482
Palmira	11.7%	13.3%	7.9%	66.1%	1.0%	2732
Pasto	13.5%	15.4%	8.7%	61.0%	1.4%	3724
Pereira	12.9%	14.2%	7.4%	64.2%	1.3%	3667
Piedecuesta	12.2%	13.8%	6.5%	66.2%	1.3%	1279
Pitalito	12.3%	19.9%	8.6%	57.5%	1.7%	1501
Popayán	12.8%	15.2%	7.2%	64.1%	0.7%	2631
Putumayo	11.9%	21.8%	10.1%	54.8%	1.4%	3619
Quibdó	14.3%	21.6%	11.7%	49.2%	3.1%	1123
Quindío	13.2%	15.1%	8.2%	61.8%	1.6%	2086
Riohacha	14.3%	22.6%	10.8%	49.9%	2.3%	2439
Rionegro	14.4%	14.8%	8.2%	62.3%	0.3%	1000
Risaralda	13.0%	17.2%	9.6%	58.3%	1.9%	2444
Sabaneta	10.2%	12.9%	7.5%	66.0%	3.3%	480
Sahagún	14.0%	21.9%	11.1%	52.4%	0.6%	1175
San Andrés	16.0%	17.5%	12.9%	51.8%	1.8%	456
Santa Marta	15.2%	17.9%	9.3%	56.3%	1.3%	5712
Santander	11.8%	17.3%	8.7%	61.4%	0.8%	7595
Sincelejo	14.9%	19.0%	9.8%	55.4%	0.8%	2977
Soacha	11.9%	14.3%	8.4%	64.4%	1.0%	5332

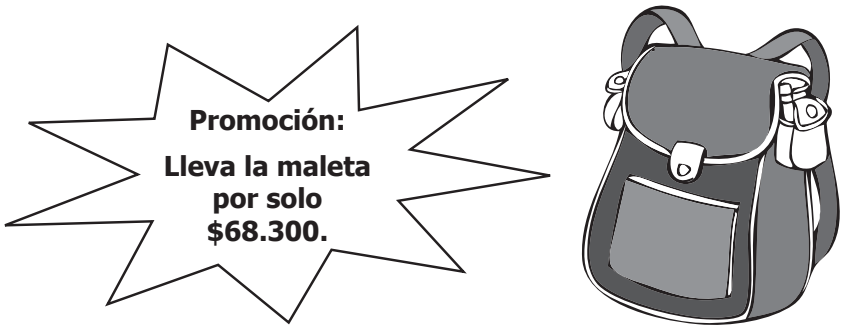
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sogamoso	12.2%	13.0%	8.3%	66.2%	0.3%	1357
Soledad	13.3%	15.4%	8.9%	60.8%	1.5%	4982
Sucre	13.6%	23.9%	11.4%	49.6%	1.6%	7541
Tolima	12.9%	19.1%	10.2%	56.7%	1.2%	9164
Tuluá	12.3%	14.3%	7.9%	65.1%	0.4%	2044
Tumaco	16.8%	24.3%	13.4%	42.7%	2.8%	2344
Tunja	10.1%	13.0%	7.5%	69.0%	0.3%	1636
Turbo	15.0%	25.0%	13.6%	45.0%	1.4%	2127
Uribia	10.1%	31.8%	14.1%	40.8%	3.2%	1278
Valle del Cauca	12.6%	17.5%	9.4%	59.5%	1.1%	7967
Valledupar	12.4%	17.9%	8.5%	59.2%	2.1%	4933
Vaupés	8.9%	30.5%	13.4%	45.2%	2.0%	440
Vichada	9.8%	26.4%	11.2%	50.0%	2.7%	788
Villavicencio	12.9%	15.8%	8.2%	62.1%	1.0%	5053
Yopal	14.2%	17.2%	8.4%	59.5%	0.7%	1890
Yumbo	15.8%	14.2%	7.7%	61.5%	0.8%	1259
Zipaquirá	10.5%	11.6%	8.7%	68.9%	0.3%	1260
Colombia	12.9%	17.5%	9.3%	58.9%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 6.

Camila ve la siguiente promoción.



Camila quiere comprar la maleta, pero solo tiene $25.950. ¿Cuánto dinero le falta a Camila para comprar la maleta?

A. $42.350.
B. $42.450.
C. $43.650.
D. $43.750.

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver problemas aditivos rutinarios y no rutinarios de transformación, comparación, combinación e igualación e interpretar condiciones necesarias para su solución.
Nivel de desempeño	Satisfacorio
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	41.4%	21.9%	18.6%	13.7%	4.3%	736
Antioquia	50.8%	19.6%	16.3%	12.0%	1.4%	24802
Apartadó	48.1%	21.3%	17.9%	11.2%	1.5%	1445
Arauca	58.7%	18.8%	13.4%	8.4%	0.7%	2692
Armenia	52.4%	18.8%	16.7%	10.8%	1.3%	2230
Atlántico	51.4%	18.8%	15.2%	12.6%	2.0%	5607
Barrancabermeja	57.0%	16.8%	14.7%	10.0%	1.4%	2152
Barranquilla	56.9%	17.7%	14.4%	9.8%	1.2%	10999
Bello	52.4%	18.8%	16.1%	12.0%	0.8%	4001
Bogotá, D.C.	61.8%	16.3%	13.3%	7.6%	1.0%	59879
Bolívar	45.0%	20.2%	18.0%	15.2%	1.5%	10594
Boyacá	59.4%	17.7%	13.2%	9.1%	0.7%	7877
Bucaramanga	65.7%	16.0%	11.4%	6.3%	0.6%	4497
Buenaventura	52.7%	19.7%	14.2%	11.9%	1.5%	4081
Buga	55.6%	16.4%	17.6%	9.2%	1.2%	982
Caldas	56.3%	18.0%	14.9%	9.9%	0.8%	5431
Cali	56.2%	18.4%	15.3%	8.6%	1.4%	18250
Caquetá	50.9%	20.4%	14.6%	12.2%	1.9%	2810
Cartagena	51.4%	19.2%	16.0%	11.7%	1.7%	10093
Cartago	47.6%	22.5%	17.7%	12.0%	0.2%	1174
Casanare	54.3%	19.8%	15.7%	9.3%	0.8%	3180
Cauca	57.1%	17.8%	13.1%	10.3%	1.6%	11686
Cesar	53.2%	18.8%	15.1%	11.4%	1.4%	7426
Chocó	51.7%	17.5%	13.6%	14.9%	2.3%	3398
Chía	60.8%	17.8%	13.3%	7.3%	0.8%	1433
Ciénaga	49.9%	18.7%	14.7%	13.6%	3.1%	1356
Cundinamarca	59.8%	18.4%	13.2%	7.9%	0.8%	15057
Córdoba	45.5%	19.8%	17.6%	15.6%	1.5%	12663
Cúcuta	58.4%	18.3%	13.9%	8.8%	0.6%	6776
Dosquebradas	62.9%	16.9%	12.8%	7.1%	0.3%	1637
Duitama	67.4%	16.5%	10.2%	5.5%	0.4%	1186
Envigado	59.4%	15.5%	16.3%	8.3%	0.5%	1219
Facatativá	63.1%	17.6%	11.0%	7.3%	1.0%	1254
Florencia	53.4%	19.7%	13.9%	12.0%	1.0%	1922
Floridablanca	64.6%	16.3%	11.8%	6.6%	0.6%	2345
Fusagasugá	60.5%	15.8%	13.1%	8.1%	2.5%	1056
Girardot	50.6%	20.7%	16.8%	11.1%	0.8%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	58.9%	18.7%	13.6%	8.4%	0.5%	1423
Guainía	42.2%	22.6%	19.4%	14.2%	1.7%	465
Guaviare	52.4%	17.7%	14.4%	13.5%	1.9%	872
Huila	56.5%	19.1%	13.6%	9.8%	1.0%	7408
Ibagué	56.0%	19.7%	14.3%	8.7%	1.2%	4917
Ipiales	66.2%	15.9%	10.5%	6.8%	0.6%	1387
Itagüí	47.3%	19.3%	20.0%	12.9%	0.5%	1659
Jamundí	49.1%	17.6%	18.7%	12.9%	1.6%	1101
La Guajira	52.2%	17.3%	15.7%	13.2%	1.6%	3849
Lorica	45.7%	20.0%	16.9%	16.2%	1.2%	1275
Magangué	44.7%	18.5%	19.2%	16.0%	1.6%	1386
Magdalena	49.5%	18.8%	15.8%	13.8%	2.2%	8758
Maicao	44.3%	19.5%	18.3%	15.4%	2.5%	2126
Malambo	54.3%	19.1%	15.7%	10.0%	1.0%	1015
Manizales	60.3%	17.8%	12.4%	8.7%	0.8%	2709
Medellín	50.9%	19.6%	16.8%	11.4%	1.4%	17825
Meta	52.5%	19.5%	15.2%	11.8%	1.0%	5547
Montería	49.2%	19.2%	16.7%	13.8%	1.1%	4560
Mosquera	56.9%	20.2%	14.9%	6.8%	1.2%	1229
Nariño	61.5%	14.8%	11.5%	9.4%	2.7%	9348
Neiva	58.2%	18.2%	14.8%	7.7%	1.1%	3487
Norte de Santander	57.8%	19.6%	12.4%	9.3%	0.9%	7482
Palmira	56.4%	19.5%	15.1%	7.8%	1.2%	2732
Pasto	64.2%	16.1%	11.4%	6.9%	1.4%	3724
Pereira	59.7%	17.1%	13.4%	8.2%	1.6%	3667
Piedecuesta	61.5%	17.7%	11.7%	7.8%	1.3%	1279
Pitalito	59.2%	17.9%	12.8%	8.1%	2.0%	1501
Popayán	64.4%	15.2%	11.5%	7.7%	1.2%	2631
Putumayo	55.4%	17.8%	14.4%	10.9%	1.5%	3619
Quibdó	55.3%	17.2%	12.6%	12.1%	2.8%	1123
Quindío	51.4%	18.9%	17.2%	10.7%	1.8%	2086
Riohacha	50.3%	18.9%	14.9%	13.9%	2.1%	2439
Rionegro	59.6%	15.0%	14.9%	10.3%	0.2%	1000
Risaralda	56.3%	17.6%	13.6%	10.7%	1.8%	2444
Sabaneta	62.7%	12.7%	14.4%	6.9%	3.3%	480
Sahagún	49.1%	20.4%	16.1%	13.8%	0.6%	1175
San Andrés	43.9%	20.8%	17.8%	16.0%	1.5%	456
Santa Marta	54.9%	18.8%	14.1%	11.0%	1.3%	5712
Santander	60.1%	18.1%	12.3%	8.6%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	52.7%	17.8%	16.1%	12.7%	0.7%	2977
Soacha	57.1%	18.1%	15.1%	8.4%	1.4%	5332
Sogamoso	62.6%	17.4%	12.4%	7.1%	0.6%	1357
Soledad	56.3%	19.3%	13.7%	9.3%	1.4%	4982
Sucre	46.6%	18.8%	18.4%	14.8%	1.4%	7541
Tolima	52.8%	19.3%	15.1%	11.8%	1.0%	9164
Tuluá	55.6%	18.7%	16.6%	8.5%	0.6%	2044
Tumaco	46.1%	18.5%	16.3%	16.7%	2.4%	2344
Tunja	65.8%	15.8%	12.1%	6.0%	0.4%	1636
Turbo	45.0%	19.4%	18.0%	16.2%	1.5%	2127
Uribia	37.8%	18.5%	21.4%	18.7%	3.6%	1278
Valle del Cauca	53.2%	19.1%	15.9%	10.7%	1.1%	7967
Valledupar	52.5%	19.6%	15.4%	10.8%	1.7%	4933
Vaupés	38.4%	18.6%	19.1%	22.5%	1.4%	440
Vichada	50.8%	19.8%	13.5%	13.3%	2.7%	788
Villavicencio	60.9%	16.5%	13.2%	8.4%	1.1%	5053
Yopal	58.0%	17.6%	14.9%	8.7%	0.8%	1890
Yumbo	55.3%	17.3%	14.9%	11.7%	0.9%	1259
Zipaquirá	64.2%	17.0%	10.3%	7.9%	0.6%	1260
Colombia	55.4%	18.3%	14.7%	10.4%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 7.

En la tabla se nombran los primeros cuatro participantes clasificados en una competencia de ciclismo, por llegar a la meta en el menor tiempo.

Participante	Tiempo (segundos)
Ana	31,2
Víctor	30,5
Carlos	31,0
Diana	32,0

Tabla

¿Quién clasificó en el primer lugar?

A. Ana.
B. Víctor.
C. Carlos.
D. Diana.

• Estructura

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Reconocer y predecir patrones numéricos.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	14.9%	42.8%	14.4%	23.2%	4.6%	736
Antioquia	13.5%	54.7%	14.2%	16.5%	1.2%	24802
Apartadó	15.4%	48.2%	16.7%	18.3%	1.4%	1445
Arauca	11.1%	58.4%	12.6%	17.4%	0.4%	2692
Armenia	11.0%	59.1%	8.9%	19.9%	1.1%	2230
Atlántico	15.7%	47.3%	13.5%	21.9%	1.6%	5607
Barrancabermeja	12.0%	56.7%	11.4%	18.9%	0.9%	2152
Barranquilla	12.7%	55.5%	10.5%	20.6%	0.8%	10999
Bello	11.8%	59.8%	10.9%	17.1%	0.5%	4001
Bogotá, D.C.	8.1%	64.2%	8.8%	18.1%	0.8%	59879
Bolívar	19.1%	41.3%	16.4%	21.8%	1.4%	10594
Boyacá	10.1%	58.1%	13.1%	18.2%	0.5%	7877
Bucaramanga	8.7%	64.5%	8.7%	17.8%	0.3%	4497
Buenaventura	16.1%	50.5%	14.5%	18.0%	0.9%	4081
Buga	11.7%	58.6%	8.7%	20.2%	0.9%	982
Caldas	10.9%	57.9%	11.8%	18.9%	0.6%	5431
Cali	11.7%	59.9%	9.6%	17.7%	1.0%	18250
Caquetá	14.6%	52.6%	16.1%	15.3%	1.4%	2810
Cartagena	15.3%	51.4%	11.7%	20.3%	1.2%	10093
Cartago	12.5%	55.8%	11.2%	20.4%	0.1%	1174
Casanare	10.4%	56.8%	13.5%	18.8%	0.5%	3180
Cauca	12.1%	54.4%	14.4%	17.7%	1.3%	11686
Cesar	14.5%	51.8%	14.6%	17.9%	1.2%	7426
Chocó	17.3%	46.1%	15.3%	19.0%	2.3%	3398
Chía	5.7%	70.6%	7.2%	16.2%	0.3%	1433
Ciénaga	14.2%	48.7%	13.4%	21.7%	2.0%	1356
Cundinamarca	9.1%	60.9%	11.1%	18.4%	0.5%	15057
Córdoba	17.2%	44.8%	17.1%	19.8%	1.1%	12663
Cúcuta	11.5%	57.9%	8.3%	21.8%	0.5%	6776
Dosquebradas	9.2%	63.7%	9.9%	17.2%	0.1%	1637
Duitama	9.1%	64.8%	7.8%	18.1%	0.2%	1186
Envigado	8.5%	70.6%	6.8%	13.7%	0.3%	1219
Facatativá	9.5%	63.2%	9.0%	17.9%	0.4%	1254
Florencia	13.5%	56.0%	12.2%	17.4%	0.9%	1922
Floridablanca	8.0%	66.6%	8.3%	16.8%	0.3%	2345
Fusagasugá	9.1%	58.9%	9.7%	20.1%	2.3%	1056
Girardot	12.7%	55.2%	9.9%	21.7%	0.4%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	11.5%	59.9%	10.0%	18.3%	0.3%	1423
Guainía	12.5%	50.3%	16.8%	19.4%	1.1%	465
Guaviare	13.4%	51.1%	16.6%	17.4%	1.4%	872
Huila	11.1%	56.6%	12.7%	18.8%	0.8%	7408
Ibagué	10.4%	59.9%	8.7%	19.9%	1.0%	4917
Ipiales	10.9%	55.4%	11.2%	22.1%	0.4%	1387
Itagüí	13.9%	56.2%	9.3%	20.4%	0.2%	1659
Jamundí	14.4%	51.4%	11.9%	20.8%	1.5%	1101
La Guajira	15.1%	49.7%	13.1%	20.7%	1.3%	3849
Lorica	15.6%	46.3%	15.5%	21.8%	0.8%	1275
Magangué	19.4%	40.5%	16.3%	22.6%	1.2%	1386
Magdalena	16.2%	46.0%	15.4%	20.5%	1.8%	8758
Maicao	18.2%	45.5%	13.5%	20.6%	2.3%	2126
Malambo	14.9%	53.7%	10.8%	20.0%	0.6%	1015
Manizales	9.7%	61.6%	8.5%	19.9%	0.3%	2709
Medellín	13.8%	57.9%	10.1%	17.1%	1.1%	17825
Meta	12.5%	55.8%	13.4%	17.8%	0.5%	5547
Montería	16.6%	48.2%	14.4%	19.9%	0.8%	4560
Mosquera	8.5%	67.0%	9.4%	14.2%	0.9%	1229
Nariño	11.4%	55.5%	12.7%	18.1%	2.3%	9348
Neiva	11.9%	56.8%	9.9%	20.9%	0.5%	3487
Norte de Santander	11.9%	57.0%	11.9%	18.4%	0.7%	7482
Palmira	11.2%	59.7%	8.3%	19.9%	0.8%	2732
Pasto	9.7%	57.1%	9.7%	22.5%	0.9%	3724
Pereira	9.6%	59.8%	9.7%	19.7%	1.2%	3667
Piedecuesta	10.6%	63.5%	7.6%	17.2%	1.2%	1279
Pitalito	11.1%	54.9%	11.8%	20.6%	1.6%	1501
Popayán	8.7%	61.8%	10.9%	18.0%	0.6%	2631
Putumayo	14.0%	50.8%	14.3%	19.9%	1.1%	3619
Quibdó	16.7%	48.0%	11.4%	20.9%	3.0%	1123
Quindío	12.2%	57.4%	9.8%	19.2%	1.4%	2086
Riohacha	15.0%	49.7%	12.8%	20.5%	1.9%	2439
Rionegro	9.7%	60.8%	10.2%	19.1%	0.2%	1000
Risaralda	12.2%	55.1%	10.9%	20.1%	1.7%	2444
Sabaneta	7.5%	71.9%	4.2%	13.5%	2.9%	480
Sahagún	15.0%	49.3%	16.3%	19.1%	0.4%	1175
San Andrés	17.8%	46.3%	15.4%	19.7%	0.9%	456
Santa Marta	13.5%	54.9%	11.5%	19.1%	1.0%	5712
Santander	9.9%	59.5%	12.4%	17.5%	0.6%	7595

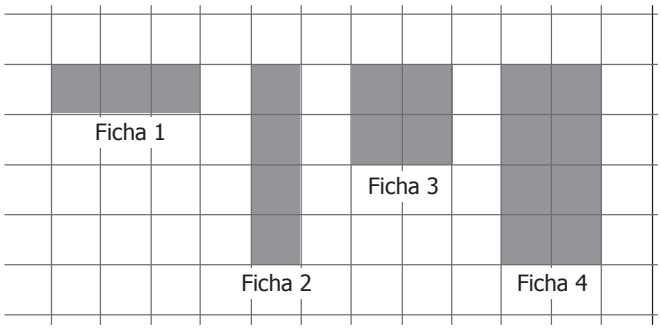
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	14.5%	51.0%	13.0%	20.8%	0.7%	2977
Soacha	10.2%	60.0%	9.8%	19.2%	0.8%	5332
Sogamoso	10.5%	62.3%	7.7%	19.5%	0.1%	1357
Soledad	12.9%	56.6%	10.3%	19.2%	1.0%	4982
Sucre	17.9%	44.1%	16.2%	20.8%	1.0%	7541
Tolima	12.9%	52.7%	13.8%	19.6%	0.9%	9164
Tuluá	10.8%	57.3%	10.4%	21.2%	0.4%	2044
Tumaco	19.5%	43.1%	14.8%	20.2%	2.4%	2344
Tunja	7.8%	66.1%	8.5%	17.4%	0.2%	1636
Turbo	18.5%	43.8%	19.3%	17.4%	1.0%	2127
Uribia	23.0%	34.1%	15.2%	24.7%	3.0%	1278
Valle del Cauca	12.5%	55.0%	12.0%	19.8%	0.7%	7967
Valledupar	12.6%	53.4%	12.3%	20.4%	1.4%	4933
Vaupés	13.6%	40.0%	19.3%	25.9%	1.1%	440
Vichada	12.3%	48.4%	18.3%	19.7%	1.4%	788
Villavicencio	10.4%	62.2%	8.8%	17.9%	0.7%	5053
Yopal	10.7%	59.5%	12.1%	17.5%	0.2%	1890
Yumbo	9.8%	61.9%	11.5%	16.1%	0.6%	1259
Zipaquirá	9.4%	63.8%	8.0%	18.6%	0.2%	1260
Colombia	12.3%	56.1%	11.8%	18.9%	1.0%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 8.

Para su tarea de matemáticas, Leonor debe llevar fichas de cartón cuya área sea 4 cm^2. Observa las fichas de la figura.



Figura

Ficha de cartón

Teniendo en cuenta que un cuadrado como este ■ tiene de área 1 cm^2, ¿cuáles fichas debe llevar Leonor para que su tarea sea correcta?

A. La ficha 2 y la ficha 3.

B. La ficha 3 y la ficha 4.

C. La ficha 1 y la ficha 2.

D. La ficha 2 y la ficha 4.

• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Describir y argumentar acerca del perímetro y el área de un conjunto de figuras planas cuando una de las magnitudes se fija.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	24.5%	30.2%	19.2%	22.0%	4.2%	736
Antioquia	38.0%	26.1%	15.8%	18.8%	1.3%	24802
Apartadó	34.4%	27.0%	19.9%	17.2%	1.5%	1445
Arauca	44.7%	22.5%	14.5%	17.7%	0.6%	2692
Armenia	47.2%	19.9%	13.9%	17.9%	1.2%	2230
Atlántico	33.8%	26.9%	17.6%	19.8%	1.8%	5607
Barrancabermeja	45.6%	21.6%	14.2%	17.4%	1.2%	2152
Barranquilla	44.0%	22.6%	14.3%	18.1%	1.0%	10999
Bello	45.2%	24.1%	13.6%	16.6%	0.5%	4001
Bogotá, D.C.	51.5%	19.7%	11.1%	16.8%	0.9%	59879
Bolívar	27.4%	30.4%	19.9%	20.6%	1.7%	10594
Boyacá	46.8%	21.9%	13.5%	17.3%	0.6%	7877
Bucaramanga	56.5%	17.3%	10.3%	15.5%	0.5%	4497
Buenaventura	33.1%	25.4%	16.6%	23.5%	1.3%	4081
Buga	45.8%	23.5%	14.5%	15.2%	1.0%	982
Caldas	40.3%	24.0%	15.2%	19.7%	0.8%	5431
Cali	46.1%	22.1%	12.8%	17.8%	1.2%	18250
Caquetá	32.8%	29.0%	15.7%	20.7%	1.7%	2810
Cartagena	39.1%	25.6%	15.5%	18.1%	1.7%	10093
Cartago	44.0%	21.7%	13.6%	20.3%	0.4%	1174
Casanare	41.4%	25.0%	14.8%	18.2%	0.5%	3180
Cauca	35.4%	26.1%	15.5%	21.1%	1.8%	11686
Cesar	37.6%	25.9%	16.6%	18.4%	1.5%	7426
Chocó	28.7%	28.6%	18.8%	21.6%	2.3%	3398
Chía	54.6%	19.1%	10.1%	15.8%	0.3%	1433
Ciénaga	33.4%	26.1%	18.6%	19.8%	2.1%	1356
Cundinamarca	48.3%	21.4%	12.5%	17.1%	0.7%	15057
Córdoba	30.5%	29.0%	18.6%	20.5%	1.4%	12663
Cúcuta	48.1%	21.4%	13.2%	16.5%	0.8%	6776
Dosquebradas	45.9%	20.9%	12.1%	20.8%	0.2%	1637
Duitama	56.7%	15.7%	11.2%	16.1%	0.3%	1186
Envigado	59.4%	17.1%	8.3%	14.8%	0.4%	1219
Facatativá	45.8%	22.4%	12.1%	19.1%	0.6%	1254
Florencia	37.0%	26.4%	14.7%	20.8%	1.1%	1922
Floridablanca	59.6%	15.6%	10.6%	13.7%	0.5%	2345
Fusagasugá	49.2%	22.1%	11.2%	15.5%	2.0%	1056
Girardot	41.0%	24.3%	15.0%	19.2%	0.6%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	48.8%	20.7%	12.1%	18.0%	0.4%	1423
Guainía	24.5%	32.3%	18.1%	24.1%	1.1%	465
Guaviare	32.9%	28.0%	17.3%	19.8%	1.9%	872
Huila	41.9%	24.0%	14.2%	18.9%	1.1%	7408
Ibagué	48.1%	20.4%	13.3%	17.0%	1.2%	4917
Ipiales	45.1%	22.4%	13.4%	18.2%	0.9%	1387
Itagüí	45.8%	22.7%	14.2%	17.0%	0.3%	1659
Jamundí	34.5%	25.6%	17.5%	20.4%	1.9%	1101
La Guajira	36.2%	26.6%	15.7%	19.8%	1.7%	3849
Lorica	31.8%	27.5%	18.2%	21.2%	1.4%	1275
Magangué	30.5%	28.1%	19.0%	20.9%	1.4%	1386
Magdalena	29.4%	28.4%	18.2%	21.9%	2.1%	8758
Maicao	31.3%	27.0%	19.4%	19.6%	2.7%	2126
Malambo	41.5%	25.3%	15.7%	16.4%	1.2%	1015
Manizales	47.9%	20.4%	13.7%	17.6%	0.4%	2709
Medellín	43.0%	23.6%	14.0%	18.0%	1.3%	17825
Meta	40.7%	24.8%	15.6%	18.2%	0.7%	5547
Montería	34.7%	26.8%	18.4%	19.1%	1.1%	4560
Mosquera	49.1%	20.2%	11.9%	18.1%	0.7%	1229
Nariño	40.7%	25.0%	13.2%	18.6%	2.5%	9348
Neiva	47.9%	22.4%	12.7%	16.3%	0.7%	3487
Norte de Santander	42.7%	24.1%	14.2%	18.1%	0.9%	7482
Palmira	47.0%	22.2%	12.7%	17.1%	1.0%	2732
Pasto	49.7%	21.8%	11.4%	16.0%	1.2%	3724
Pereira	46.8%	20.9%	12.9%	18.1%	1.3%	3667
Piedecuesta	51.2%	19.9%	12.9%	14.8%	1.3%	1279
Pitalito	43.2%	23.9%	14.7%	16.7%	1.6%	1501
Popayán	46.5%	21.6%	13.0%	18.1%	0.8%	2631
Putumayo	37.7%	25.6%	16.9%	18.5%	1.2%	3619
Quibdó	33.8%	24.5%	16.6%	21.7%	3.4%	1123
Quindío	44.2%	23.1%	11.9%	19.2%	1.6%	2086
Riohacha	35.7%	25.8%	14.8%	21.1%	2.6%	2439
Rionegro	49.0%	21.8%	12.7%	15.9%	0.6%	1000
Risaralda	40.8%	24.1%	13.3%	20.0%	1.8%	2444
Sabaneta	55.6%	16.3%	9.8%	15.4%	2.9%	480
Sahagún	34.7%	26.4%	17.7%	20.6%	0.6%	1175
San Andrés	28.5%	28.3%	16.7%	25.4%	1.1%	456
Santa Marta	40.7%	23.1%	15.7%	19.2%	1.3%	5712
Santander	47.4%	22.2%	13.1%	16.7%	0.6%	7595

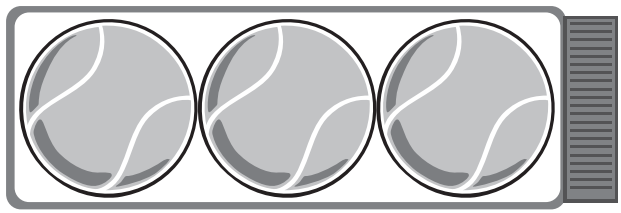
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	37.7%	25.3%	16.9%	19.3%	0.8%	2977
Soacha	44.4%	23.0%	12.9%	18.9%	0.9%	5332
Sogamoso	54.5%	19.8%	10.1%	15.3%	0.3%	1357
Soledad	45.6%	21.3%	14.6%	17.4%	1.1%	4982
Sucre	28.3%	30.0%	19.2%	21.4%	1.1%	7541
Tolima	38.0%	25.8%	15.6%	19.5%	1.1%	9164
Tuluá	45.9%	22.9%	13.5%	17.3%	0.4%	2044
Tumaco	26.0%	31.0%	18.1%	22.5%	2.4%	2344
Tunja	57.8%	16.9%	11.1%	14.0%	0.1%	1636
Turbo	29.7%	29.4%	18.1%	21.3%	1.5%	2127
Uribia	19.6%	30.8%	18.3%	28.0%	3.3%	1278
Valle del Cauca	39.8%	24.8%	15.0%	19.4%	1.0%	7967
Valledupar	42.3%	22.7%	14.7%	18.7%	1.6%	4933
Vaupés	23.0%	32.3%	16.4%	26.8%	1.6%	440
Vichada	30.5%	29.8%	14.7%	23.0%	2.0%	788
Villavicencio	49.2%	22.2%	12.2%	15.6%	0.9%	5053
Yopal	45.4%	23.3%	14.2%	16.6%	0.5%	1890
Yumbo	40.0%	24.1%	14.0%	21.0%	0.9%	1259
Zipaquirá	51.9%	19.2%	12.9%	15.8%	0.2%	1260
Colombia	42.2%	23.7%	14.4%	18.4%	1.2%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 9.

En un almacén se empacan pelotas de tenis en frascos de la siguiente manera.



Figura

Un cliente lleva una caja que contiene 12 frascos como el anterior. ¿Cuántas pelotas se llevó?

A. 12
B. 15
C. 36
D. 48

• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Reconocer e interpretar números naturales y fracciones en diferentes contextos.
Nivel de desempeño	Mínimo
Respuesta Correcta	C

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	19.7%	12.0%	54.8%	9.0%	4.6%	736
Antioquia	12.7%	9.5%	69.7%	6.8%	1.4%	24802
Apartadó	16.5%	10.2%	63.8%	7.9%	1.5%	1445
Arauca	10.4%	7.7%	76.1%	5.1%	0.7%	2692
Armenia	8.5%	9.4%	75.7%	5.1%	1.4%	2230
Atlántico	17.7%	10.9%	62.2%	7.3%	1.9%	5607
Barrancabermeja	10.8%	9.4%	73.2%	5.4%	1.2%	2152
Barranquilla	11.4%	8.9%	73.2%	5.2%	1.2%	10999
Bello	8.7%	9.2%	75.5%	5.8%	0.8%	4001
Bogotá, D.C.	6.4%	6.4%	82.1%	4.2%	0.9%	59879
Bolívar	20.5%	13.0%	55.2%	9.4%	1.9%	10594
Boyacá	10.4%	7.1%	77.0%	4.8%	0.7%	7877
Bucaramanga	5.8%	6.4%	83.4%	3.9%	0.5%	4497
Buenaventura	16.9%	10.9%	62.7%	7.9%	1.5%	4081
Buga	8.8%	10.5%	74.5%	4.8%	1.4%	982
Caldas	10.8%	7.8%	75.0%	5.7%	0.6%	5431
Cali	9.7%	9.4%	75.2%	4.5%	1.3%	18250
Caquetá	15.9%	8.1%	66.5%	7.4%	2.1%	2810
Cartagena	14.3%	11.0%	66.4%	6.5%	1.8%	10093
Cartago	9.6%	10.1%	74.5%	5.2%	0.5%	1174
Casanare	10.7%	8.8%	74.8%	4.9%	0.8%	3180
Cauca	16.7%	9.0%	65.9%	6.5%	1.9%	11686
Cesar	16.4%	10.5%	64.9%	6.8%	1.4%	7426
Chocó	22.2%	12.6%	52.8%	9.9%	2.6%	3398
Chía	4.7%	4.7%	86.3%	3.8%	0.4%	1433
Ciénaga	17.8%	10.3%	62.8%	7.1%	2.1%	1356
Cundinamarca	7.5%	6.8%	80.7%	4.2%	0.7%	15057
Córdoba	17.5%	12.3%	60.0%	8.6%	1.6%	12663
Cúcuta	9.1%	7.6%	78.1%	4.4%	0.8%	6776
Dosquebradas	7.1%	6.4%	81.7%	4.8%	0.1%	1637
Duitama	4.6%	5.1%	86.4%	3.5%	0.3%	1186
Envigado	5.0%	6.6%	83.4%	4.6%	0.4%	1219
Facatativá	7.2%	6.6%	82.9%	2.8%	0.5%	1254
Florencia	12.6%	9.0%	72.0%	5.1%	1.3%	1922
Floridablanca	5.7%	6.2%	84.1%	3.6%	0.5%	2345
Fusagasugá	6.3%	6.9%	81.3%	3.3%	2.1%	1056
Girardot	11.8%	9.3%	75.2%	3.1%	0.7%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	7.7%	8.2%	79.6%	4.1%	0.4%	1423
Guainía	24.5%	12.9%	51.4%	9.5%	1.7%	465
Guaviare	13.5%	9.4%	68.6%	6.8%	1.7%	872
Huila	10.5%	7.9%	76.2%	4.4%	1.0%	7408
Ibagué	8.2%	7.3%	79.1%	4.0%	1.4%	4917
Ipiales	7.9%	8.7%	79.3%	3.5%	0.6%	1387
Itagüí	9.8%	9.6%	73.2%	6.9%	0.5%	1659
Jamundí	12.4%	11.5%	67.7%	6.5%	1.9%	1101
La Guajira	19.7%	10.1%	59.6%	8.5%	2.0%	3849
Lorica	18.5%	11.8%	59.8%	8.4%	1.4%	1275
Magangué	20.5%	12.9%	56.6%	8.3%	1.7%	1386
Magdalena	19.2%	10.8%	58.5%	9.1%	2.4%	8758
Maicao	18.9%	12.6%	56.3%	9.5%	2.7%	2126
Malambo	13.8%	11.0%	67.2%	6.5%	1.5%	1015
Manizales	7.6%	6.8%	80.3%	4.7%	0.6%	2709
Medellín	9.6%	10.0%	72.3%	6.7%	1.4%	17825
Meta	11.0%	8.8%	73.3%	6.2%	0.7%	5547
Montería	16.5%	11.6%	63.3%	7.4%	1.2%	4560
Mosquera	5.9%	8.8%	79.6%	4.8%	1.0%	1229
Nariño	13.7%	7.5%	70.9%	5.3%	2.5%	9348
Neiva	8.3%	8.1%	78.7%	4.0%	0.9%	3487
Norte de Santander	11.9%	7.7%	74.6%	4.7%	1.0%	7482
Palmira	8.2%	9.3%	77.5%	4.0%	1.0%	2732
Pasto	7.3%	7.0%	80.1%	4.5%	1.1%	3724
Pereira	8.6%	6.4%	79.0%	4.6%	1.4%	3667
Piedecuesta	6.6%	7.3%	82.3%	2.7%	1.2%	1279
Pitalito	8.8%	7.1%	77.9%	4.5%	1.7%	1501
Popayán	7.9%	7.0%	79.9%	4.3%	0.9%	2631
Putumayo	13.5%	9.5%	69.4%	6.4%	1.3%	3619
Quibdó	19.2%	10.8%	58.3%	8.3%	3.4%	1123
Quindío	10.7%	8.5%	74.0%	5.0%	1.8%	2086
Riohacha	18.0%	10.4%	60.9%	8.3%	2.5%	2439
Rionegro	7.7%	7.2%	79.4%	5.5%	0.2%	1000
Risaralda	11.6%	7.6%	73.6%	5.5%	1.7%	2444
Sabaneta	6.3%	5.4%	83.3%	2.1%	2.9%	480
Sahagún	16.4%	11.0%	65.4%	6.5%	0.8%	1175
San Andrés	17.3%	12.9%	61.2%	6.4%	2.2%	456
Santa Marta	13.2%	9.5%	69.7%	6.3%	1.3%	5712
Santander	9.9%	7.2%	77.7%	4.4%	0.9%	7595

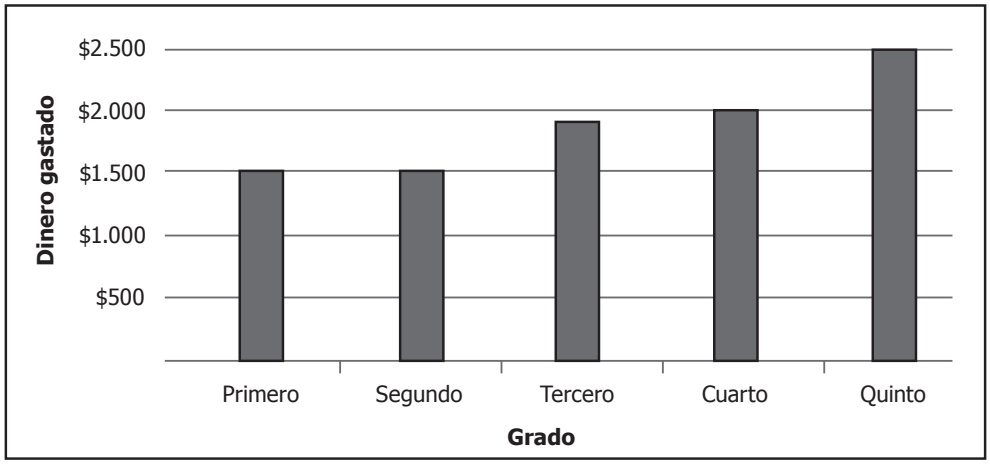
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	14.3%	10.0%	68.1%	6.9%	0.8%	2977
Soacha	7.9%	7.9%	78.8%	4.4%	1.1%	5332
Sogamoso	5.4%	6.1%	85.3%	3.0%	0.2%	1357
Soledad	11.1%	9.0%	73.5%	5.2%	1.3%	4982
Sucre	19.9%	12.5%	57.5%	8.8%	1.3%	7541
Tolima	13.6%	9.0%	70.1%	6.0%	1.3%	9164
Tuluá	9.6%	8.3%	76.1%	5.4%	0.5%	2044
Tumaco	22.2%	13.1%	51.4%	10.7%	2.6%	2344
Tunja	5.7%	5.7%	84.8%	3.7%	0.1%	1636
Turbo	17.5%	11.8%	58.7%	10.4%	1.5%	2127
Uribia	28.5%	14.9%	40.4%	13.4%	2.9%	1278
Valle del Cauca	11.1%	9.4%	72.8%	5.7%	1.1%	7967
Valledupar	12.4%	9.7%	70.8%	5.3%	1.8%	4933
Vaupés	23.9%	15.0%	48.6%	10.9%	1.6%	440
Vichada	15.5%	9.3%	64.0%	9.3%	2.0%	788
Villavicencio	7.8%	7.4%	80.1%	3.7%	1.0%	5053
Yopal	9.7%	8.6%	75.8%	5.7%	0.3%	1890
Yumbo	12.5%	9.1%	73.1%	4.7%	0.6%	1259
Zipaquirá	6.8%	5.2%	84.0%	3.4%	0.6%	1260
Colombia	11.7%	8.8%	72.4%	5.8%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 10.

En la gráfica se muestra la cantidad de dinero aproximada que gasta cada estudiante de grados primero a quinto en la cafetería de un colegio.



Gráfica

¿Cuál es el grado que más dinero gasta en la cafetería?

A. Quinto.

B. Cuarto.

C. Tercero.

D. Segundo.

• Estructura

Competencia	Comunicación
Componente	Aleatorio
Afirmación	Describir e Interpretar datos relativos a situaciones del entorno escolar.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	76.2%	7.2%	4.9%	6.9%	4.8%	736
Antioquia	83.2%	5.3%	5.0%	5.0%	1.5%	24802
Apartadó	78.2%	7.1%	6.9%	6.0%	1.9%	1445
Arauca	87.1%	4.4%	3.8%	3.9%	0.8%	2692
Armenia	85.9%	4.1%	4.7%	4.0%	1.3%	2230
Atlántico	81.6%	5.4%	5.5%	5.5%	2.1%	5607
Barrancabermeja	85.9%	4.4%	4.0%	4.6%	1.1%	2152
Barranquilla	86.9%	4.2%	3.8%	4.0%	1.1%	10999
Bello	86.2%	4.7%	4.6%	3.7%	0.7%	4001
Bogotá, D.C.	91.4%	2.7%	2.4%	2.4%	1.0%	59879
Bolívar	75.8%	7.3%	7.3%	7.5%	2.1%	10594
Boyacá	89.1%	3.0%	3.4%	3.7%	0.8%	7877
Bucaramanga	92.8%	2.4%	1.7%	2.6%	0.4%	4497
Buenaventura	83.9%	5.0%	4.6%	5.1%	1.5%	4081
Buga	85.8%	4.7%	4.1%	4.3%	1.1%	982
Caldas	89.1%	3.8%	2.9%	3.6%	0.7%	5431
Cali	88.0%	3.9%	3.6%	3.2%	1.3%	18250
Caquetá	83.3%	4.7%	4.2%	5.9%	1.8%	2810
Cartagena	82.4%	5.7%	5.5%	4.6%	1.7%	10093
Cartago	86.5%	5.3%	3.7%	4.0%	0.4%	1174
Casanare	86.7%	5.1%	3.7%	3.6%	0.9%	3180
Cauca	85.7%	4.4%	3.6%	4.5%	1.7%	11686
Cesar	83.1%	5.2%	4.9%	5.0%	1.8%	7426
Chocó	73.9%	8.4%	7.4%	7.7%	2.7%	3398
Chía	93.1%	2.2%	2.4%	1.7%	0.5%	1433
Ciénaga	79.9%	6.0%	6.1%	5.0%	2.9%	1356
Cundinamarca	90.2%	3.3%	2.9%	3.0%	0.7%	15057
Córdoba	77.5%	6.9%	7.1%	6.8%	1.6%	12663
Cúcuta	89.0%	3.9%	3.0%	3.4%	0.6%	6776
Dosquebradas	91.8%	2.9%	1.7%	3.2%	0.4%	1637
Duitama	92.0%	3.3%	2.6%	1.7%	0.4%	1186
Envigado	91.1%	3.0%	2.9%	2.6%	0.4%	1219
Facatativá	91.1%	2.7%	2.5%	3.0%	0.7%	1254
Florencia	83.9%	5.7%	4.4%	5.0%	1.0%	1922
Floridablanca	91.1%	3.0%	2.9%	2.5%	0.5%	2345
Fusagasugá	90.1%	2.3%	3.0%	2.5%	2.2%	1056
Girardot	90.0%	3.5%	2.5%	3.3%	0.7%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	90.7%	3.3%	3.0%	2.6%	0.4%	1423
Guainía	78.1%	4.9%	7.5%	7.3%	2.2%	465
Guaviare	83.9%	4.5%	4.7%	4.9%	1.9%	872
Huila	88.8%	3.3%	3.1%	3.8%	1.0%	7408
Ibagué	88.1%	3.8%	3.3%	3.4%	1.4%	4917
Ipiales	90.0%	3.5%	2.7%	3.2%	0.6%	1387
Itagüí	84.2%	6.0%	5.3%	3.9%	0.6%	1659
Jamundí	83.6%	4.0%	5.6%	5.1%	1.7%	1101
La Guajira	79.8%	6.7%	5.8%	6.0%	1.7%	3849
Lorica	79.9%	5.9%	6.3%	6.3%	1.6%	1275
Magangué	77.8%	6.1%	6.6%	7.4%	2.1%	1386
Magdalena	80.0%	6.1%	5.9%	5.8%	2.3%	8758
Maicao	78.2%	6.3%	5.9%	6.8%	2.8%	2126
Malambo	82.1%	6.2%	4.9%	5.5%	1.3%	1015
Manizales	90.6%	2.9%	3.1%	2.9%	0.5%	2709
Medellín	82.4%	5.9%	5.4%	4.9%	1.4%	17825
Meta	85.9%	4.8%	3.8%	4.4%	1.0%	5547
Montería	79.6%	6.6%	6.2%	6.4%	1.2%	4560
Mosquera	89.7%	3.8%	2.4%	2.8%	1.2%	1229
Nariño	86.9%	3.6%	3.2%	3.8%	2.6%	9348
Neiva	90.1%	3.4%	2.8%	3.0%	0.7%	3487
Norte de Santander	88.0%	4.0%	3.6%	3.4%	1.0%	7482
Palmira	89.5%	3.1%	3.1%	3.1%	1.2%	2732
Pasto	91.0%	3.0%	2.3%	2.6%	1.2%	3724
Pereira	90.6%	2.8%	2.8%	2.5%	1.3%	3667
Piedecuesta	90.4%	3.0%	2.5%	3.0%	1.1%	1279
Pitalito	86.7%	4.1%	3.0%	4.4%	1.7%	1501
Popayán	90.3%	3.3%	2.5%	2.9%	1.0%	2631
Putumayo	84.6%	4.7%	4.3%	5.0%	1.3%	3619
Quibdó	81.4%	5.3%	5.0%	4.6%	3.7%	1123
Quindío	87.7%	3.8%	3.8%	3.1%	1.5%	2086
Riohacha	79.5%	6.7%	6.8%	4.8%	2.3%	2439
Rionegro	89.4%	3.8%	3.1%	3.3%	0.4%	1000
Risaralda	86.9%	4.7%	3.1%	3.6%	1.7%	2444
Sabaneta	89.6%	2.9%	2.1%	2.3%	3.1%	480
Sahagún	82.4%	6.4%	5.0%	5.5%	0.7%	1175
San Andrés	77.0%	8.1%	5.7%	7.5%	1.8%	456
Santa Marta	85.3%	4.4%	4.2%	4.7%	1.4%	5712
Santander	89.2%	3.1%	2.8%	3.9%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	83.5%	5.5%	5.5%	4.7%	0.8%	2977
Soacha	89.4%	3.2%	3.6%	2.8%	1.1%	5332
Sogamoso	91.1%	3.7%	2.9%	2.1%	0.1%	1357
Soledad	86.0%	4.8%	3.9%	4.1%	1.3%	4982
Sucre	78.9%	6.8%	6.6%	6.3%	1.4%	7541
Tolima	85.9%	4.4%	4.1%	4.4%	1.2%	9164
Tuluá	88.8%	4.0%	3.6%	3.0%	0.5%	2044
Tumaco	73.7%	8.7%	7.8%	7.3%	2.5%	2344
Tunja	93.5%	2.6%	1.7%	2.1%	0.1%	1636
Turbo	74.3%	7.7%	7.9%	8.4%	1.8%	2127
Uribia	71.0%	7.5%	8.1%	9.5%	4.0%	1278
Valle del Cauca	86.0%	4.8%	4.4%	3.9%	1.0%	7967
Valledupar	85.7%	4.6%	4.1%	3.8%	1.8%	4933
Vaupés	73.6%	7.5%	7.3%	9.3%	2.3%	440
Vichada	83.2%	4.9%	3.7%	6.2%	1.9%	788
Villavicencio	88.0%	4.1%	3.4%	3.6%	0.9%	5053
Yopal	86.3%	4.5%	4.3%	4.4%	0.4%	1890
Yumbo	88.7%	4.0%	2.9%	3.7%	0.8%	1259
Zipaquirá	92.8%	2.5%	2.1%	2.4%	0.2%	1260
Colombia	86.0%	4.5%	4.1%	4.2%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

- **Pregunta 11.**

En un juego se distribuyen fichas, cada una con diferente número de puntos (ver figura 1).

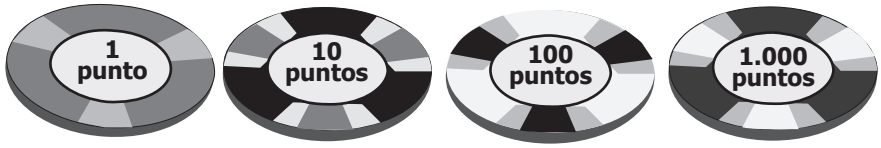


Figura 1

Si un jugador tiene la siguiente cantidad de fichas,

Figura 2

¿cuántos puntos en total tiene el jugador?

A. 1.090 puntos.
B. 1.423 puntos.
C. 3.070 puntos.
D. 3.241 puntos.

- **Estructura**

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Usar y justificar propiedades (aditiva y posicional) del sistema de numeración decimal.
Nivel de desempeño	Mínimo
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	8.4%	53.9%	15.2%	17.9%	4.5%	736
Antioquia	9.6%	64.3%	11.6%	12.8%	1.6%	24802
Apartadó	10.9%	58.2%	14.0%	14.9%	1.9%	1445
Arauca	7.5%	72.8%	9.1%	10.0%	0.6%	2692
Armenia	8.3%	71.3%	10.1%	9.0%	1.3%	2230
Atlántico	9.8%	60.8%	14.1%	13.1%	2.2%	5607
Barrancabermeja	7.8%	69.9%	10.0%	10.7%	1.5%	2152
Barranquilla	8.6%	70.4%	10.1%	9.6%	1.2%	10999
Bello	8.3%	70.1%	10.2%	10.3%	1.0%	4001
Bogotá, D.C.	5.6%	78.4%	7.3%	7.6%	1.1%	59879
Bolívar	12.3%	52.7%	16.6%	16.3%	2.0%	10594
Boyacá	6.7%	73.1%	9.3%	10.1%	0.7%	7877
Bucaramanga	4.9%	79.7%	7.4%	7.3%	0.7%	4497
Buenaventura	9.2%	64.1%	11.7%	13.4%	1.6%	4081
Buga	8.0%	68.6%	11.9%	10.1%	1.3%	982
Caldas	6.9%	73.4%	9.3%	9.5%	0.8%	5431
Cali	7.6%	71.5%	9.9%	9.7%	1.4%	18250
Caquetá	8.5%	65.2%	11.6%	13.0%	1.7%	2810
Cartagena	9.8%	62.9%	12.2%	13.1%	2.0%	10093
Cartago	9.1%	68.1%	10.6%	11.4%	0.9%	1174
Casanare	7.7%	70.1%	10.4%	10.8%	0.9%	3180
Cauca	8.2%	67.4%	10.3%	12.2%	1.8%	11686
Cesar	9.9%	62.2%	13.3%	12.9%	1.8%	7426
Chocó	11.9%	56.2%	13.2%	16.0%	2.8%	3398
Chía	4.9%	82.1%	6.0%	6.5%	0.5%	1433
Ciénaga	10.0%	62.7%	12.5%	12.5%	2.3%	1356
Cundinamarca	6.0%	77.4%	7.8%	8.0%	0.8%	15057
Córdoba	10.6%	56.0%	16.0%	15.7%	1.7%	12663
Cúcuta	7.2%	74.7%	8.8%	8.4%	0.8%	6776
Dosquebradas	4.8%	78.8%	8.0%	8.0%	0.4%	1637
Duitama	6.6%	81.4%	6.8%	4.9%	0.3%	1186
Envigado	4.9%	80.1%	8.1%	6.2%	0.7%	1219
Facatativá	6.2%	79.5%	6.1%	7.5%	0.6%	1254
Florencia	9.0%	67.8%	9.8%	11.9%	1.5%	1922
Floridablanca	5.3%	80.1%	6.7%	7.3%	0.6%	2345
Fusagasugá	6.3%	77.5%	6.1%	8.0%	2.3%	1056
Girardot	7.5%	69.6%	11.1%	11.4%	0.4%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	7.2%	77.1%	7.8%	7.3%	0.6%	1423
Guainía	10.1%	51.6%	13.8%	21.9%	2.6%	465
Guaviare	10.6%	65.7%	11.1%	10.3%	2.3%	872
Huila	7.5%	72.2%	9.5%	9.8%	1.1%	7408
Ibagué	6.8%	74.4%	8.7%	8.8%	1.3%	4917
Ipiales	5.7%	77.7%	7.7%	8.2%	0.6%	1387
Itagüí	9.9%	68.7%	10.3%	10.5%	0.5%	1659
Jamundí	9.4%	63.9%	12.1%	13.2%	1.5%	1101
La Guajira	9.2%	61.1%	13.4%	14.4%	1.8%	3849
Lorica	11.8%	57.2%	15.4%	14.3%	1.4%	1275
Magangué	11.5%	53.6%	18.3%	14.6%	1.9%	1386
Magdalena	10.7%	58.8%	13.3%	14.8%	2.4%	8758
Maicao	10.3%	57.3%	14.7%	14.7%	3.1%	2126
Malambo	10.6%	66.3%	12.2%	9.8%	1.1%	1015
Manizales	6.0%	76.0%	8.5%	9.1%	0.5%	2709
Medellín	9.5%	66.6%	11.8%	10.8%	1.4%	17825
Meta	9.0%	68.1%	10.5%	11.2%	1.1%	5547
Montería	10.9%	59.2%	14.9%	13.7%	1.2%	4560
Mosquera	7.5%	75.3%	8.8%	7.4%	1.1%	1229
Nariño	7.3%	70.7%	8.7%	10.6%	2.7%	9348
Neiva	6.9%	75.3%	9.1%	7.9%	0.9%	3487
Norte de Santander	7.2%	73.9%	8.8%	9.1%	1.0%	7482
Palmira	6.6%	75.4%	8.7%	8.3%	1.0%	2732
Pasto	5.5%	77.7%	8.1%	7.5%	1.3%	3724
Pereira	6.2%	76.6%	7.8%	8.1%	1.3%	3667
Piedecuesta	5.4%	78.5%	7.4%	7.3%	1.4%	1279
Pitalito	7.1%	71.9%	9.8%	9.5%	1.7%	1501
Popayán	5.9%	77.2%	8.1%	7.9%	1.0%	2631
Putumayo	7.8%	68.4%	11.1%	11.3%	1.5%	3619
Quibdó	10.5%	61.6%	12.5%	11.6%	3.8%	1123
Quindío	7.5%	70.2%	10.8%	9.9%	1.5%	2086
Riohacha	11.2%	60.0%	12.8%	13.3%	2.8%	2439
Rionegro	6.6%	72.7%	10.0%	10.2%	0.5%	1000
Risaralda	8.8%	68.2%	10.3%	10.8%	1.9%	2444
Sabaneta	5.0%	80.0%	6.7%	5.4%	2.9%	480
Sahagún	10.0%	63.1%	12.3%	14.0%	0.8%	1175
San Andrés	10.1%	53.5%	16.7%	17.5%	2.2%	456
Santa Marta	8.7%	68.4%	10.1%	11.3%	1.5%	5712
Santander	6.5%	75.3%	8.5%	8.8%	0.9%	7595

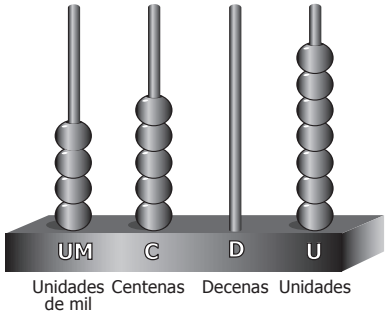
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	9.9%	62.6%	12.8%	13.8%	0.8%	2977
Soacha	7.7%	73.6%	8.9%	8.8%	1.1%	5332
Sogamoso	6.6%	81.4%	6.0%	5.7%	0.4%	1357
Soledad	8.9%	71.0%	9.6%	9.2%	1.3%	4982
Sucre	11.6%	54.5%	15.9%	16.7%	1.2%	7541
Tolima	8.1%	68.0%	10.8%	11.8%	1.2%	9164
Tuluá	8.6%	72.1%	9.5%	9.3%	0.4%	2044
Tumaco	12.5%	50.6%	14.5%	19.1%	3.4%	2344
Tunja	5.1%	81.9%	6.5%	6.3%	0.2%	1636
Turbo	12.4%	52.4%	15.9%	17.7%	1.6%	2127
Uribia	12.4%	48.7%	15.0%	20.3%	3.4%	1278
Valle del Cauca	8.8%	69.2%	10.2%	10.7%	1.1%	7967
Valledupar	8.1%	67.6%	10.7%	11.7%	2.0%	4933
Vaupés	11.4%	48.0%	17.7%	21.1%	1.8%	440
Vichada	10.3%	63.8%	10.7%	13.2%	2.0%	788
Villavicencio	6.4%	76.6%	8.5%	7.5%	1.0%	5053
Yopal	7.7%	71.6%	10.8%	9.3%	0.6%	1890
Yumbo	7.9%	70.1%	10.5%	10.8%	0.6%	1259
Zipaquirá	6.3%	77.7%	8.3%	7.1%	0.5%	1260
Colombia	8.1%	69.4%	10.4%	10.7%	1.4%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 12.

La profesora Adriana representó un número en este ábaco.



¿Qué número representó la profesora?

A. 457
B. 754
C. 4.507
D. 7.054

• Estructura

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Usar y justificar propiedades (aditiva y posicional) del sistema de numeración decimal.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	27.4%	14.5%	35.1%	18.8%	4.2%	736
Antioquia	23.6%	13.6%	46.0%	15.2%	1.5%	24802
Apartadó	24.2%	15.6%	41.3%	17.1%	1.9%	1445
Arauca	22.2%	11.0%	52.2%	13.9%	0.7%	2692
Armenia	19.3%	12.2%	54.3%	12.3%	1.8%	2230
Atlántico	23.5%	14.6%	42.6%	17.1%	2.1%	5607
Barrancabermeja	22.0%	11.4%	53.0%	12.2%	1.4%	2152
Barranquilla	21.8%	12.7%	51.6%	12.8%	1.2%	10999
Bello	22.4%	13.0%	50.3%	13.6%	0.7%	4001
Bogotá, D.C.	18.7%	9.9%	60.5%	9.8%	1.1%	59879
Bolívar	24.4%	16.5%	36.9%	20.4%	1.8%	10594
Boyacá	20.4%	11.7%	54.5%	12.7%	0.7%	7877
Bucaramanga	19.1%	9.6%	61.1%	9.6%	0.6%	4497
Buenaventura	22.3%	13.2%	46.3%	16.6%	1.6%	4081
Buga	22.6%	11.7%	51.8%	12.3%	1.5%	982
Caldas	21.6%	12.9%	51.7%	13.1%	0.8%	5431
Cali	21.8%	11.3%	54.9%	10.7%	1.4%	18250
Caquetá	22.4%	12.6%	47.7%	15.5%	1.8%	2810
Cartagena	21.9%	13.4%	47.9%	15.1%	1.8%	10093
Cartago	21.6%	12.0%	51.4%	14.2%	0.8%	1174
Casanare	25.6%	12.5%	48.0%	12.6%	1.3%	3180
Cauca	20.8%	12.2%	50.5%	14.5%	2.0%	11686
Cesar	22.0%	14.1%	46.9%	15.6%	1.4%	7426
Chocó	22.3%	14.7%	41.4%	19.1%	2.6%	3398
Chía	17.2%	8.6%	64.6%	9.0%	0.6%	1433
Ciénaga	21.8%	13.8%	40.9%	20.8%	2.7%	1356
Cundinamarca	19.8%	10.4%	58.5%	10.5%	0.8%	15057
Córdoba	24.7%	15.7%	39.6%	18.4%	1.5%	12663
Cúcuta	20.3%	10.6%	56.4%	11.8%	0.9%	6776
Dosquebradas	22.3%	9.3%	58.3%	9.7%	0.5%	1637
Duitama	16.9%	8.2%	64.1%	10.3%	0.6%	1186
Envigado	14.6%	8.9%	64.6%	11.2%	0.7%	1219
Facatativá	21.0%	11.5%	56.5%	10.4%	0.6%	1254
Florencia	21.9%	13.9%	48.2%	14.4%	1.6%	1922
Floridablanca	16.5%	8.9%	62.7%	11.4%	0.6%	2345
Fusagasugá	20.7%	10.0%	56.9%	10.2%	2.1%	1056
Girardot	23.3%	13.2%	51.4%	11.0%	1.1%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	21.1%	10.5%	54.6%	12.9%	0.8%	1423
Guainía	24.9%	13.3%	39.6%	20.4%	1.7%	465
Guaviare	25.2%	14.0%	45.5%	13.4%	1.8%	872
Huila	21.4%	12.5%	52.3%	12.7%	1.1%	7408
Ibagué	21.5%	11.8%	54.5%	10.9%	1.3%	4917
Ipiales	18.5%	11.5%	57.5%	11.8%	0.8%	1387
Itagüí	24.5%	11.9%	48.3%	14.7%	0.5%	1659
Jamundí	24.3%	15.2%	46.4%	12.8%	1.4%	1101
La Guajira	22.3%	13.1%	45.9%	16.7%	1.9%	3849
Lorica	24.9%	15.5%	42.0%	16.2%	1.5%	1275
Magangué	26.3%	16.8%	35.6%	19.6%	1.7%	1386
Magdalena	22.2%	15.0%	40.9%	19.6%	2.3%	8758
Maicao	23.5%	15.9%	41.8%	16.4%	2.4%	2126
Malambo	23.0%	15.5%	43.9%	16.5%	1.2%	1015
Manizales	19.9%	9.7%	59.5%	10.4%	0.6%	2709
Medellín	22.7%	13.5%	49.2%	13.2%	1.3%	17825
Meta	23.9%	13.9%	47.9%	13.3%	1.0%	5547
Montería	24.7%	14.2%	43.1%	16.8%	1.1%	4560
Mosquera	23.3%	10.0%	55.0%	10.4%	1.3%	1229
Nariño	18.4%	10.4%	55.4%	13.2%	2.6%	9348
Neiva	21.4%	10.4%	55.7%	11.6%	0.9%	3487
Norte de Santander	21.4%	11.7%	53.7%	12.1%	1.2%	7482
Palmira	22.5%	11.9%	53.8%	10.7%	1.1%	2732
Pasto	18.1%	10.1%	60.6%	10.0%	1.2%	3724
Pereira	21.3%	10.0%	56.5%	10.8%	1.4%	3667
Piedecuesta	21.8%	9.2%	57.2%	10.4%	1.3%	1279
Pitalito	21.1%	12.0%	52.1%	12.9%	1.9%	1501
Popayán	19.4%	9.0%	61.2%	9.2%	1.1%	2631
Putumayo	22.0%	12.8%	49.9%	13.7%	1.5%	3619
Quibdó	23.6%	12.3%	46.7%	13.8%	3.6%	1123
Quindío	22.7%	12.0%	50.1%	13.2%	1.9%	2086
Riohacha	23.8%	14.5%	41.5%	17.5%	2.8%	2439
Rionegro	18.3%	10.5%	57.9%	12.9%	0.4%	1000
Risaralda	21.8%	12.6%	51.7%	12.2%	1.7%	2444
Sabaneta	15.6%	7.5%	60.6%	13.1%	3.1%	480
Sahagún	23.6%	14.1%	45.3%	16.1%	0.9%	1175
San Andrés	24.3%	19.1%	37.9%	17.5%	1.1%	456
Santa Marta	23.7%	13.4%	47.7%	13.5%	1.7%	5712
Santander	22.2%	10.7%	54.9%	11.4%	0.8%	7595

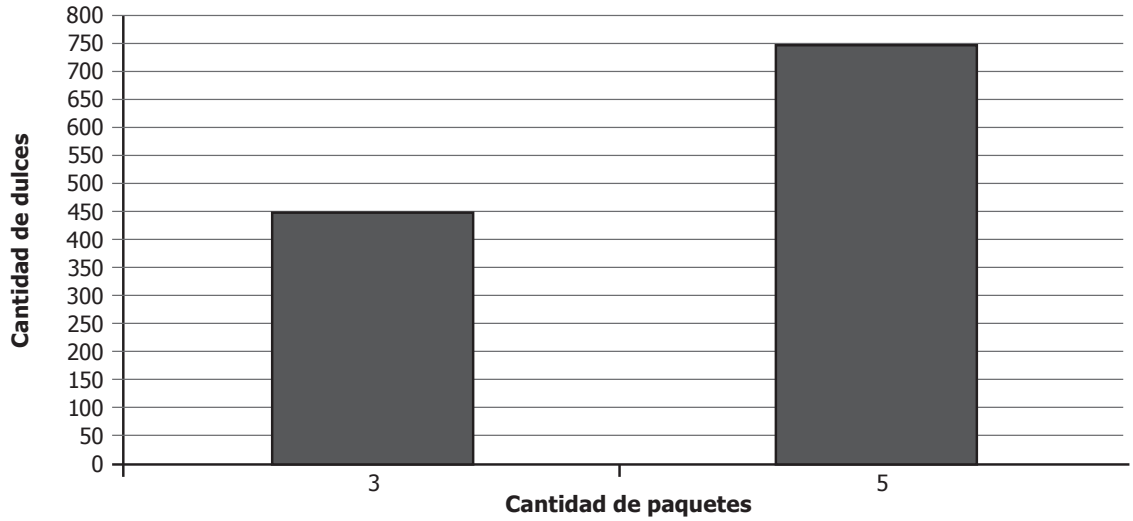
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	26.3%	14.9%	43.5%	14.5%	0.7%	2977
Soacha	22.7%	12.4%	53.7%	10.1%	1.1%	5332
Sogamoso	19.2%	9.4%	59.7%	11.1%	0.7%	1357
Soledad	21.7%	12.4%	51.4%	13.1%	1.4%	4982
Sucre	24.8%	16.3%	38.3%	19.3%	1.4%	7541
Tolima	23.9%	13.5%	46.7%	14.8%	1.1%	9164
Tuluá	21.7%	11.5%	54.5%	11.6%	0.6%	2044
Tumaco	21.2%	16.7%	38.4%	21.0%	2.7%	2344
Tunja	18.2%	8.4%	63.4%	9.7%	0.3%	1636
Turbo	25.9%	16.7%	35.5%	20.5%	1.4%	2127
Uribia	22.7%	17.4%	34.5%	22.4%	3.1%	1278
Valle del Cauca	23.2%	13.1%	50.1%	12.4%	1.2%	7967
Valledupar	22.9%	12.3%	49.7%	13.2%	1.9%	4933
Vaupés	22.7%	20.2%	30.2%	25.2%	1.6%	440
Vichada	23.2%	13.1%	43.7%	17.6%	2.4%	788
Villavicencio	19.7%	10.3%	57.4%	11.6%	1.1%	5053
Yopal	23.3%	13.5%	50.4%	12.3%	0.4%	1890
Yumbo	24.4%	15.4%	48.5%	10.7%	1.0%	1259
Zipaquirá	19.3%	9.0%	60.6%	10.7%	0.4%	1260
Colombia	21.7%	12.4%	51.3%	13.4%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 13.

En la gráfica aparece información de la cantidad de dulces que contienen 3 y 5 paquetes.



Gráfica

Si cada paquete contiene la misma cantidad de dulces, ¿cuántos dulces hay en 4 paquetes?

A. 450
B. 500
C. 600
D. 850

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver y formular problemas sencillos de proporcionalidad directa e inversa.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	27.0%	19.0%	26.4%	22.7%	4.9%	736
Antioquia	24.5%	17.5%	36.0%	20.6%	1.4%	24802
Apartadó	28.9%	19.9%	28.7%	21.1%	1.4%	1445
Arauca	21.6%	17.6%	43.3%	16.9%	0.6%	2692
Armenia	19.2%	19.6%	40.7%	19.0%	1.4%	2230
Atlántico	26.5%	16.8%	35.2%	19.4%	2.1%	5607
Barrancabermeja	21.2%	16.7%	45.6%	15.3%	1.2%	2152
Barranquilla	21.2%	17.2%	42.9%	17.3%	1.4%	10999
Bello	18.8%	19.0%	40.0%	21.5%	0.8%	4001
Bogotá, D.C.	15.1%	16.6%	48.9%	18.1%	1.2%	59879
Bolívar	31.6%	18.5%	26.8%	21.4%	1.7%	10594
Boyacá	17.9%	16.4%	47.1%	17.9%	0.6%	7877
Bucaramanga	16.2%	16.0%	51.1%	15.9%	0.7%	4497
Buenaventura	28.0%	17.4%	33.9%	19.3%	1.4%	4081
Buga	21.5%	18.2%	41.3%	17.7%	1.2%	982
Caldas	22.1%	16.4%	40.7%	19.9%	0.8%	5431
Cali	19.4%	17.1%	42.9%	18.9%	1.6%	18250
Caquetá	25.9%	16.1%	37.2%	18.9%	1.9%	2810
Cartagena	25.2%	17.5%	37.8%	17.9%	1.6%	10093
Cartago	20.7%	18.8%	40.9%	19.2%	0.4%	1174
Casanare	21.7%	18.3%	41.4%	17.9%	0.8%	3180
Cauca	24.0%	16.4%	39.3%	18.5%	1.8%	11686
Cesar	26.2%	17.3%	36.2%	18.7%	1.5%	7426
Chocó	31.9%	17.5%	29.5%	18.5%	2.6%	3398
Chía	12.8%	16.0%	53.5%	17.2%	0.6%	1433
Ciénaga	27.7%	17.5%	34.2%	17.7%	2.9%	1356
Cundinamarca	16.8%	16.7%	48.1%	17.7%	0.8%	15057
Córdoba	29.3%	18.4%	30.7%	20.4%	1.3%	12663
Cúcuta	20.0%	16.8%	45.7%	16.8%	0.7%	6776
Dosquebradas	17.0%	19.0%	40.9%	22.6%	0.5%	1637
Duitama	15.9%	15.5%	52.7%	15.7%	0.3%	1186
Envigado	15.8%	15.3%	48.6%	19.5%	0.7%	1219
Facatativá	16.7%	17.0%	45.9%	19.9%	0.4%	1254
Florencia	24.9%	17.2%	37.4%	19.3%	1.2%	1922
Floridablanca	14.9%	14.4%	54.5%	15.6%	0.7%	2345
Fusagasugá	15.8%	18.0%	47.5%	16.4%	2.3%	1056
Girardot	20.4%	17.2%	43.2%	18.9%	0.3%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	16.9%	16.1%	48.9%	17.6%	0.5%	1423
Guainía	30.1%	18.7%	30.8%	19.6%	0.9%	465
Guaviare	25.5%	17.9%	37.0%	18.0%	1.6%	872
Huila	20.5%	16.1%	44.1%	18.1%	1.1%	7408
Ibagué	17.3%	17.1%	47.6%	16.8%	1.2%	4917
Ipiales	19.6%	15.8%	46.4%	17.7%	0.5%	1387
Itagüí	19.6%	19.7%	38.0%	22.3%	0.4%	1659
Jamundí	23.3%	19.3%	34.6%	21.2%	1.7%	1101
La Guajira	28.7%	16.2%	36.2%	16.8%	2.2%	3849
Lorica	29.1%	16.2%	33.9%	19.8%	1.0%	1275
Magangué	32.5%	17.8%	28.8%	19.6%	1.3%	1386
Magdalena	31.2%	17.1%	30.9%	18.7%	2.1%	8758
Maicao	30.2%	18.6%	30.6%	18.0%	2.6%	2126
Malambo	26.7%	15.5%	41.4%	15.7%	0.8%	1015
Manizales	17.7%	17.3%	45.1%	19.3%	0.6%	2709
Medellín	21.5%	18.7%	37.2%	21.2%	1.4%	17825
Meta	23.2%	18.5%	39.6%	17.8%	0.9%	5547
Montería	27.1%	18.8%	33.4%	19.9%	0.9%	4560
Mosquera	15.3%	18.0%	46.5%	19.0%	1.2%	1229
Nariño	21.8%	16.2%	41.6%	17.5%	2.8%	9348
Neiva	19.8%	18.2%	44.3%	16.9%	0.8%	3487
Norte de Santander	22.1%	16.3%	43.7%	16.8%	1.1%	7482
Palmira	18.8%	18.0%	43.2%	18.6%	1.4%	2732
Pasto	17.4%	16.1%	44.7%	20.4%	1.4%	3724
Pereira	17.4%	17.6%	42.5%	21.2%	1.3%	3667
Piedecuesta	14.5%	17.7%	48.9%	17.7%	1.3%	1279
Pitalito	20.8%	14.5%	44.3%	18.7%	1.7%	1501
Popayán	17.8%	16.5%	47.4%	17.3%	1.0%	2631
Putumayo	24.0%	17.0%	39.0%	18.7%	1.2%	3619
Quibdó	25.2%	17.5%	33.3%	20.7%	3.3%	1123
Quindío	20.3%	16.6%	40.8%	20.5%	1.7%	2086
Riohacha	27.8%	17.5%	33.8%	18.5%	2.3%	2439
Rionegro	17.1%	19.1%	43.4%	20.1%	0.3%	1000
Risaralda	22.0%	16.6%	40.3%	19.3%	1.8%	2444
Sabaneta	11.7%	15.2%	50.0%	19.6%	3.5%	480
Sahagún	25.8%	18.7%	36.9%	18.3%	0.3%	1175
San Andrés	32.7%	16.7%	28.5%	21.1%	1.1%	456
Santa Marta	23.2%	18.2%	39.4%	17.8%	1.3%	5712
Santander	18.6%	16.4%	46.6%	17.4%	0.9%	7595

Continúa en la siguiente página

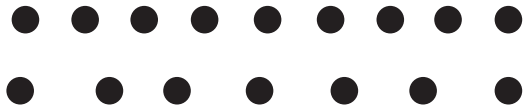
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	24.3%	18.5%	36.6%	19.9%	0.7%	2977
Soacha	18.1%	18.6%	42.2%	19.8%	1.2%	5332
Sogamoso	12.9%	18.5%	53.2%	15.0%	0.4%	1357
Soledad	21.8%	18.1%	43.3%	15.8%	1.1%	4982
Sucre	29.8%	18.0%	30.0%	20.9%	1.2%	7541
Tolima	24.2%	16.7%	38.8%	19.2%	1.2%	9164
Tuluá	20.1%	16.9%	43.7%	18.9%	0.4%	2044
Tumaco	31.5%	18.3%	27.3%	20.1%	2.9%	2344
Tunja	12.5%	17.7%	52.9%	16.7%	0.2%	1636
Turbo	32.2%	17.8%	26.9%	21.9%	1.2%	2127
Uribia	33.3%	17.9%	25.4%	20.3%	3.1%	1278
Valle del Cauca	22.1%	17.4%	39.6%	19.9%	1.1%	7967
Valledupar	22.5%	16.7%	41.8%	17.2%	1.9%	4933
Vaupés	33.4%	16.4%	24.5%	24.5%	1.1%	440
Vichada	27.9%	17.9%	32.2%	20.1%	1.9%	788
Villavicencio	18.8%	17.5%	47.9%	14.9%	0.9%	5053
Yopal	21.1%	16.7%	41.7%	20.0%	0.5%	1890
Yumbo	22.3%	18.1%	38.8%	19.6%	1.2%	1259
Zipaquirá	14.8%	16.3%	52.6%	15.8%	0.4%	1260
Colombia	21.7%	17.2%	41.0%	18.7%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

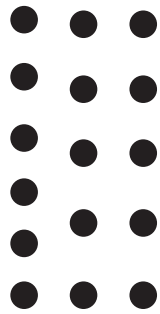
• Pregunta 14.

Un profesor debe organizar a sus 16 estudiantes en filas con igual número de integrantes. ¿Cuál de las siguientes alternativas le sirve al profesor?

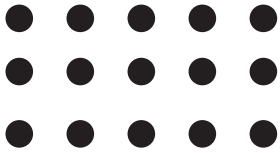
A.



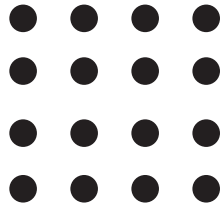
B.



C.



D.



• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Describir e interpretar propiedades y relaciones de los números y sus operaciones.
Nivel de desempeño	Mínimo
Respuesta Correcta	D

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	23.0%	20.5%	12.1%	40.4%	4.1%	736
Antioquia	14.3%	18.4%	12.1%	53.8%	1.4%	24802
Apartadó	19.2%	20.8%	13.2%	45.1%	1.7%	1445
Arauca	11.9%	14.7%	10.6%	62.2%	0.6%	2692
Armenia	11.7%	18.0%	11.6%	57.4%	1.3%	2230
Atlántico	16.5%	20.5%	11.6%	49.5%	1.8%	5607
Barrancabermeja	12.7%	17.0%	10.9%	58.1%	1.3%	2152
Barranquilla	13.8%	16.4%	11.2%	57.4%	1.2%	10999
Bello	13.1%	18.0%	11.5%	56.6%	0.7%	4001
Bogotá, D.C.	11.2%	12.9%	9.9%	64.9%	1.1%	59879
Bolívar	17.5%	22.8%	15.2%	42.7%	1.8%	10594
Boyacá	12.3%	14.3%	10.2%	62.5%	0.7%	7877
Bucaramanga	10.6%	13.1%	8.6%	67.2%	0.6%	4497
Buenaventura	14.5%	18.7%	11.9%	53.3%	1.6%	4081
Buga	11.7%	20.7%	12.5%	53.9%	1.2%	982
Caldas	14.2%	16.6%	10.5%	58.0%	0.7%	5431
Cali	13.4%	16.5%	10.6%	58.3%	1.3%	18250
Caquetá	15.7%	17.9%	10.0%	54.4%	2.0%	2810
Cartagena	17.0%	18.7%	12.4%	50.3%	1.5%	10093
Cartago	14.3%	18.5%	12.4%	54.3%	0.5%	1174
Casanare	13.2%	16.2%	12.0%	57.9%	0.8%	3180
Cauca	16.8%	15.6%	10.1%	56.0%	1.5%	11686
Cesar	15.5%	18.4%	12.2%	52.5%	1.5%	7426
Chocó	18.6%	20.2%	13.0%	45.5%	2.8%	3398
Chía	9.1%	9.5%	9.4%	71.5%	0.5%	1433
Ciénaga	16.7%	19.2%	11.5%	50.1%	2.5%	1356
Cundinamarca	10.3%	13.0%	10.1%	65.9%	0.7%	15057
Córdoba	16.8%	21.5%	14.0%	46.3%	1.4%	12663
Cúcuta	12.4%	15.9%	10.8%	60.0%	0.8%	6776
Dosquebradas	11.1%	14.8%	10.8%	62.9%	0.4%	1637
Duitama	8.9%	11.6%	9.5%	69.6%	0.3%	1186
Envigado	8.3%	12.9%	9.9%	68.4%	0.5%	1219
Facatativá	9.3%	12.8%	9.4%	68.1%	0.4%	1254
Florencia	15.8%	18.7%	13.0%	51.3%	1.2%	1922
Floridablanca	10.0%	12.1%	8.8%	68.6%	0.5%	2345
Fusagasugá	10.4%	12.2%	9.3%	66.0%	2.1%	1056
Girardot	15.7%	17.8%	11.8%	53.9%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	11.4%	16.3%	10.2%	61.8%	0.4%	1423
Guainía	16.8%	19.6%	12.5%	49.2%	1.9%	465
Guaviare	14.2%	19.5%	12.4%	51.9%	1.9%	872
Huila	14.6%	15.6%	9.9%	59.0%	0.9%	7408
Ibagué	11.5%	15.0%	11.3%	61.1%	1.2%	4917
Ipiales	10.6%	13.3%	9.2%	66.3%	0.6%	1387
Itagüí	13.9%	19.2%	14.2%	52.3%	0.4%	1659
Jamundí	17.1%	18.6%	14.7%	48.0%	1.6%	1101
La Guajira	16.8%	20.1%	11.2%	49.9%	2.0%	3849
Lorica	15.9%	20.9%	14.2%	47.8%	1.2%	1275
Magangué	20.6%	21.1%	14.4%	42.2%	1.7%	1386
Magdalena	16.6%	19.4%	13.4%	48.3%	2.3%	8758
Maicao	17.4%	21.1%	13.0%	46.0%	2.5%	2126
Malambo	13.4%	19.2%	12.7%	53.7%	1.0%	1015
Manizales	11.6%	16.0%	11.9%	60.2%	0.4%	2709
Medellín	13.7%	19.0%	13.2%	52.6%	1.4%	17825
Meta	14.8%	17.4%	11.9%	55.1%	0.7%	5547
Montería	16.5%	19.4%	13.6%	49.5%	1.1%	4560
Mosquera	12.9%	11.7%	10.9%	63.5%	1.1%	1229
Nariño	13.3%	14.4%	9.2%	60.3%	2.7%	9348
Neiva	13.3%	16.8%	8.9%	60.2%	0.7%	3487
Norte de Santander	14.0%	15.6%	10.4%	59.0%	0.9%	7482
Palmira	11.7%	16.2%	9.3%	61.9%	0.8%	2732
Pasto	12.1%	14.0%	9.7%	63.1%	1.1%	3724
Pereira	9.8%	15.6%	10.1%	63.2%	1.3%	3667
Piedecuesta	11.6%	14.0%	10.0%	63.0%	1.4%	1279
Pitalito	11.4%	16.3%	12.5%	58.0%	1.7%	1501
Popayán	11.3%	13.5%	10.3%	64.0%	0.9%	2631
Putumayo	15.3%	17.0%	11.1%	55.3%	1.4%	3619
Quibdó	14.2%	17.5%	12.2%	52.3%	3.7%	1123
Quindío	15.4%	17.4%	11.1%	54.6%	1.5%	2086
Riohacha	15.8%	19.8%	12.1%	49.8%	2.5%	2439
Rionegro	11.2%	16.7%	10.7%	61.2%	0.2%	1000
Risaralda	14.0%	17.6%	9.8%	56.7%	1.8%	2444
Sabaneta	10.4%	11.5%	9.8%	65.4%	2.9%	480
Sahagún	12.5%	21.5%	14.4%	51.1%	0.4%	1175
San Andrés	15.4%	22.8%	15.8%	44.3%	1.8%	456
Santa Marta	15.2%	18.4%	12.5%	52.4%	1.4%	5712
Santander	12.8%	14.0%	9.6%	62.8%	0.8%	7595

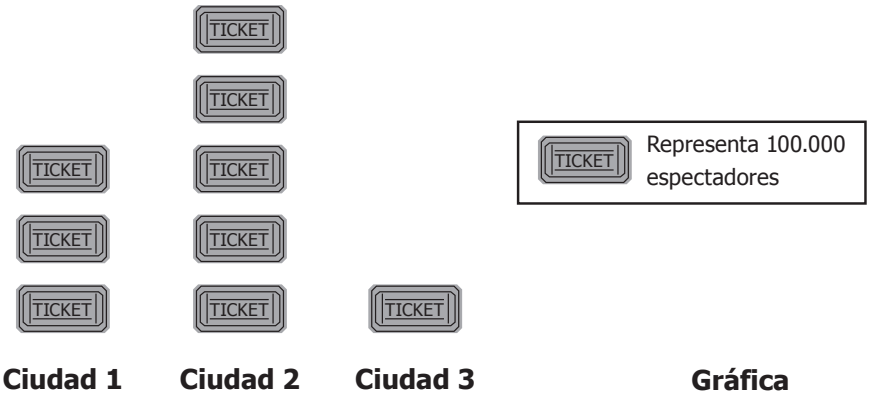
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	15.0%	19.5%	12.0%	52.8%	0.6%	2977
Soacha	11.2%	14.4%	11.3%	62.2%	0.9%	5332
Sogamoso	10.6%	12.8%	9.0%	67.4%	0.2%	1357
Soledad	13.4%	17.8%	10.8%	56.8%	1.1%	4982
Sucre	18.3%	21.5%	13.3%	45.6%	1.3%	7541
Tolima	15.8%	17.6%	11.3%	54.2%	1.1%	9164
Tuluá	11.0%	15.6%	11.1%	61.9%	0.4%	2044
Tumaco	20.3%	22.1%	13.8%	41.2%	2.6%	2344
Tunja	8.0%	12.0%	8.9%	70.9%	0.2%	1636
Turbo	18.2%	21.4%	13.7%	45.1%	1.6%	2127
Uribia	22.9%	23.0%	13.5%	37.2%	3.3%	1278
Valle del Cauca	14.3%	18.5%	10.2%	56.1%	0.9%	7967
Valledupar	13.3%	16.4%	11.3%	57.1%	1.9%	4933
Vaupés	19.8%	21.6%	15.2%	42.0%	1.4%	440
Vichada	17.4%	16.4%	10.5%	53.6%	2.2%	788
Villavicencio	11.6%	14.8%	10.4%	62.4%	0.8%	5053
Yopal	14.2%	15.9%	12.6%	56.9%	0.4%	1890
Yumbo	13.0%	21.3%	10.4%	54.6%	0.7%	1259
Zipaquirá	8.3%	10.6%	8.3%	72.3%	0.4%	1260
Colombia	13.8%	16.7%	11.2%	57.0%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 15.

En la gráfica se representa la cantidad de espectadores que ingresaron a ver la misma película en 3 ciudades.



¿Cuál de las siguientes tablas representa la información de la gráfica?

A.

Ciudad	Cantidad de espectadores
1	300.000
2	500.000
3	100.000

B.

Ciudad	Cantidad de espectadores
1	3
2	5
3	1

C.

Ciudad	Cantidad de espectadores
1	30
2	50
3	10

D.

Ciudad	Cantidad de espectadores
1	300.000.000
2	500.000.000
3	100.000.000

• Estructura

Competencia	Comunicación
Componente	Aleatorio
Afirmación	Clasificar y organizar la presentación de datos.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	40.8%	18.2%	16.0%	20.4%	4.6%	736
Antioquia	55.5%	17.0%	11.4%	14.4%	1.7%	24802
Apartadó	49.5%	19.7%	14.8%	14.0%	1.9%	1445
Arauca	61.4%	15.9%	10.5%	11.3%	0.8%	2692
Armenia	63.9%	13.8%	10.6%	10.3%	1.5%	2230
Atlántico	54.0%	17.2%	10.7%	15.4%	2.6%	5607
Barrancabermeja	64.3%	14.0%	9.1%	10.6%	2.0%	2152
Barranquilla	64.3%	14.5%	8.9%	10.8%	1.4%	10999
Bello	63.7%	15.0%	9.1%	11.3%	0.9%	4001
Bogotá, D.C.	72.5%	11.6%	6.9%	7.8%	1.3%	59879
Bolívar	43.2%	20.2%	15.3%	18.9%	2.4%	10594
Boyacá	63.7%	15.3%	9.4%	10.9%	0.8%	7877
Bucaramanga	73.8%	12.4%	5.9%	7.2%	0.7%	4497
Buenaventura	56.0%	17.6%	9.9%	14.3%	2.3%	4081
Buga	62.3%	15.3%	10.3%	10.8%	1.3%	982
Caldas	60.9%	16.0%	9.4%	12.6%	1.0%	5431
Cali	66.9%	13.6%	8.1%	9.7%	1.7%	18250
Caquetá	53.8%	18.5%	11.2%	14.3%	2.3%	2810
Cartagena	56.8%	17.6%	10.7%	12.7%	2.3%	10093
Cartago	61.2%	14.7%	11.2%	11.8%	1.1%	1174
Casanare	59.2%	17.0%	10.4%	12.5%	1.0%	3180
Cauca	58.4%	15.6%	8.8%	15.2%	2.0%	11686
Cesar	53.6%	18.2%	11.9%	14.5%	1.8%	7426
Chocó	47.9%	17.5%	13.1%	18.3%	3.3%	3398
Chía	75.8%	9.6%	6.1%	8.0%	0.6%	1433
Ciénaga	53.8%	18.1%	9.7%	15.5%	2.9%	1356
Cundinamarca	67.5%	13.9%	8.3%	9.4%	0.9%	15057
Córdoba	46.3%	20.2%	14.4%	17.2%	1.9%	12663
Cúcuta	66.4%	14.6%	8.8%	9.3%	0.9%	6776
Dosquebradas	66.6%	14.5%	7.1%	11.2%	0.6%	1637
Duitama	75.7%	10.5%	6.3%	6.7%	0.8%	1186
Envigado	73.1%	9.8%	7.0%	9.6%	0.6%	1219
Facatativá	71.0%	13.9%	7.3%	7.5%	0.4%	1254
Florencia	58.8%	16.0%	10.8%	12.5%	1.8%	1922
Floridablanca	74.6%	10.5%	5.9%	8.1%	0.8%	2345
Fusagasugá	69.8%	11.7%	7.7%	8.5%	2.3%	1056
Girardot	61.9%	16.5%	11.5%	9.3%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	69.5%	11.8%	8.6%	9.4%	0.7%	1423
Guainía	43.0%	19.1%	13.1%	22.2%	2.6%	465
Guaviare	54.4%	17.8%	10.4%	14.3%	3.1%	872
Huila	61.8%	16.2%	9.5%	11.1%	1.4%	7408
Ibagué	67.3%	13.7%	8.4%	9.2%	1.4%	4917
Ipiales	67.7%	14.2%	8.7%	8.7%	0.6%	1387
Itagüí	61.7%	15.5%	10.4%	11.6%	0.8%	1659
Jamundí	55.0%	16.7%	11.8%	14.7%	1.8%	1101
La Guajira	51.7%	17.9%	11.8%	16.2%	2.4%	3849
Lorica	46.6%	21.5%	14.4%	15.9%	1.6%	1275
Magangué	44.2%	21.8%	14.0%	17.7%	2.3%	1386
Magdalena	48.3%	19.1%	12.5%	17.3%	2.8%	8758
Maicao	49.3%	18.8%	12.9%	15.8%	3.2%	2126
Malambo	57.8%	14.9%	11.4%	14.7%	1.2%	1015
Manizales	68.0%	13.1%	9.0%	9.2%	0.7%	2709
Medellín	59.6%	15.7%	11.2%	11.7%	1.8%	17825
Meta	56.9%	18.5%	10.2%	13.2%	1.3%	5547
Montería	51.8%	19.1%	13.0%	14.5%	1.6%	4560
Mosquera	67.7%	13.3%	8.5%	9.0%	1.5%	1229
Nariño	62.2%	14.0%	8.5%	12.2%	3.0%	9348
Neiva	67.0%	15.2%	8.6%	8.3%	0.9%	3487
Norte de Santander	62.0%	15.6%	9.2%	12.1%	1.1%	7482
Palmira	67.5%	13.4%	8.3%	9.5%	1.4%	2732
Pasto	70.8%	12.2%	6.9%	8.8%	1.3%	3724
Pereira	68.9%	12.4%	7.3%	9.8%	1.5%	3667
Piedecuesta	70.2%	12.4%	8.0%	8.1%	1.3%	1279
Pitalito	62.9%	16.3%	8.8%	10.3%	1.8%	1501
Popayán	65.8%	13.2%	8.2%	11.6%	1.2%	2631
Putumayo	56.6%	17.2%	11.0%	13.3%	1.8%	3619
Quibdó	52.3%	20.1%	10.1%	13.1%	4.5%	1123
Quindío	61.5%	15.9%	9.0%	11.4%	2.3%	2086
Riohacha	51.8%	18.7%	11.3%	15.6%	2.7%	2439
Rionegro	63.4%	15.4%	9.7%	11.0%	0.5%	1000
Risaralda	60.1%	15.7%	9.7%	12.6%	1.9%	2444
Sabaneta	71.9%	12.3%	7.7%	5.0%	3.1%	480
Sahagún	52.7%	19.9%	13.0%	12.9%	1.4%	1175
San Andrés	46.7%	20.8%	15.1%	15.4%	2.0%	456
Santa Marta	60.1%	17.1%	9.6%	11.5%	1.7%	5712
Santander	64.9%	15.1%	8.4%	10.7%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	54.8%	18.6%	12.5%	13.0%	1.2%	2977
Soacha	67.6%	14.1%	7.4%	9.8%	1.1%	5332
Sogamoso	74.6%	11.2%	6.9%	7.1%	0.2%	1357
Soledad	65.3%	14.6%	8.5%	10.0%	1.6%	4982
Sucre	45.7%	19.7%	14.9%	17.8%	1.9%	7541
Tolima	56.7%	17.2%	10.9%	13.8%	1.4%	9164
Tuluá	65.9%	14.1%	9.1%	10.1%	0.7%	2044
Tumaco	42.9%	18.6%	14.0%	21.2%	3.2%	2344
Tunja	75.8%	10.1%	5.9%	7.8%	0.5%	1636
Turbo	43.6%	20.5%	15.5%	18.7%	1.8%	2127
Uribia	37.4%	20.6%	15.0%	23.7%	3.3%	1278
Valle del Cauca	60.3%	16.3%	10.5%	11.5%	1.4%	7967
Valledupar	60.3%	16.2%	10.1%	11.4%	2.0%	4933
Vaupés	37.7%	20.9%	13.9%	25.5%	2.0%	440
Vichada	52.3%	16.2%	10.5%	18.1%	2.8%	788
Villavicencio	68.7%	13.2%	8.0%	8.8%	1.4%	5053
Yopal	61.5%	16.4%	10.3%	11.3%	0.6%	1890
Yumbo	62.9%	16.3%	9.6%	10.2%	1.0%	1259
Zipaquirá	72.6%	13.7%	6.0%	7.1%	0.6%	1260
Colombia	61.2%	15.5%	9.8%	11.9%	1.6%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 16.

En el grado quinto de un colegio hay dos cursos. En quinto A hay 33 estudiantes y en quinto B hay 12 estudiantes más.

¿Cuántos estudiantes hay en quinto B?

A. 12
B. 21
C. 33
D. 45

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver problemas aditivos rutinarios y no rutinarios de transformación, comparación, combinación e igualación e interpretar condiciones necesarias para su solución.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	D

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	39.4%	13.7%	11.3%	30.7%	4.9%	736
Antioquia	31.4%	10.5%	9.6%	46.8%	1.7%	24802
Apartadó	31.3%	11.7%	12.7%	42.4%	1.9%	1445
Arauca	30.6%	9.5%	8.0%	51.0%	0.9%	2692
Armenia	24.1%	9.5%	8.5%	56.4%	1.6%	2230
Atlántico	30.8%	11.8%	12.1%	42.8%	2.5%	5607
Barrancabermeja	29.3%	9.5%	7.9%	51.9%	1.5%	2152
Barranquilla	28.1%	9.5%	8.4%	52.5%	1.5%	10999
Bello	23.3%	10.5%	8.2%	56.9%	1.1%	4001
Bogotá, D.C.	22.5%	7.5%	6.1%	62.6%	1.3%	59879
Bolívar	34.0%	13.8%	13.7%	36.1%	2.4%	10594
Boyacá	29.7%	9.1%	7.7%	52.4%	1.1%	7877
Bucaramanga	21.5%	6.7%	5.8%	65.2%	0.8%	4497
Buenaventura	35.9%	10.7%	9.6%	41.7%	2.1%	4081
Buga	25.1%	10.5%	8.7%	54.6%	1.2%	982
Caldas	28.3%	9.2%	8.4%	52.9%	1.1%	5431
Cali	27.3%	9.6%	7.1%	54.2%	1.7%	18250
Caquetá	36.2%	9.7%	9.9%	42.2%	2.0%	2810
Cartagena	30.8%	10.9%	10.3%	45.8%	2.2%	10093
Cartago	25.6%	10.4%	8.7%	54.6%	0.7%	1174
Casanare	28.8%	10.4%	9.6%	49.8%	1.4%	3180
Cauca	35.8%	9.9%	8.7%	43.4%	2.2%	11686
Cesar	32.7%	11.6%	10.4%	43.4%	1.8%	7426
Chocó	29.8%	12.8%	12.5%	41.6%	3.2%	3398
Chía	20.4%	7.0%	3.7%	68.3%	0.6%	1433
Ciénaga	34.7%	12.2%	12.7%	37.2%	3.3%	1356
Cundinamarca	27.4%	8.3%	7.0%	56.3%	1.0%	15057
Córdoba	34.0%	12.6%	13.1%	38.2%	2.1%	12663
Cúcuta	26.4%	8.9%	7.2%	56.5%	1.0%	6776
Dosquebradas	24.1%	6.8%	5.4%	63.0%	0.7%	1637
Duitama	18.5%	7.6%	5.8%	67.5%	0.6%	1186
Envigado	13.5%	7.1%	6.1%	72.6%	0.7%	1219
Facatativá	26.8%	8.8%	6.1%	57.7%	0.6%	1254
Florencia	29.0%	11.5%	8.6%	49.1%	1.7%	1922
Floridablanca	18.9%	7.5%	6.1%	66.5%	1.1%	2345
Fusagasugá	26.5%	8.0%	4.9%	58.1%	2.4%	1056
Girardot	35.8%	10.6%	8.0%	44.5%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	24.7%	10.3%	6.4%	58.0%	0.6%	1423
Guainía	38.3%	12.9%	10.8%	34.4%	3.7%	465
Guaviare	35.7%	9.9%	10.8%	40.6%	3.1%	872
Huila	34.8%	9.1%	8.1%	46.7%	1.4%	7408
Ibagué	26.6%	9.8%	6.7%	55.4%	1.4%	4917
Ipiales	27.7%	8.9%	7.6%	55.0%	0.7%	1387
Itagüí	27.1%	11.0%	10.6%	50.8%	0.5%	1659
Jamundí	30.8%	11.5%	9.8%	45.8%	2.1%	1101
La Guajira	31.7%	11.8%	11.6%	42.3%	2.6%	3849
Lorica	33.2%	14.4%	12.6%	38.6%	1.3%	1275
Magangué	36.4%	13.8%	13.9%	33.8%	2.2%	1386
Magdalena	34.0%	12.1%	12.8%	38.4%	2.7%	8758
Maicao	32.2%	11.2%	13.0%	40.2%	3.4%	2126
Malambo	32.8%	10.4%	10.5%	45.2%	1.0%	1015
Manizales	20.9%	8.2%	8.0%	62.2%	0.7%	2709
Medellín	21.4%	10.9%	10.3%	55.7%	1.6%	17825
Meta	32.7%	10.7%	9.2%	46.0%	1.4%	5547
Montería	29.8%	12.1%	11.9%	44.6%	1.5%	4560
Mosquera	21.4%	8.5%	6.1%	62.7%	1.3%	1229
Nariño	33.9%	8.9%	7.6%	46.7%	2.9%	9348
Neiva	28.7%	10.1%	7.2%	52.9%	1.1%	3487
Norte de Santander	30.8%	9.0%	7.7%	51.3%	1.2%	7482
Palmira	24.3%	9.2%	7.1%	58.1%	1.3%	2732
Pasto	24.5%	8.8%	6.2%	59.4%	1.1%	3724
Pereira	23.9%	7.1%	6.6%	60.9%	1.4%	3667
Piedecuesta	22.9%	7.0%	7.6%	60.9%	1.6%	1279
Pitalito	32.4%	9.3%	7.9%	48.4%	2.1%	1501
Popayán	24.6%	8.1%	6.8%	59.3%	1.2%	2631
Putumayo	31.6%	11.7%	9.3%	46.0%	1.5%	3619
Quibdó	26.3%	13.0%	12.1%	45.1%	3.6%	1123
Quindío	27.6%	9.3%	8.9%	52.2%	2.0%	2086
Riohacha	33.9%	11.0%	10.8%	41.2%	3.1%	2439
Rionegro	18.6%	9.3%	6.6%	64.8%	0.7%	1000
Risaralda	30.1%	9.4%	8.1%	50.5%	1.9%	2444
Sabaneta	14.0%	6.7%	6.7%	69.0%	3.8%	480
Sahagún	29.7%	10.7%	10.6%	48.4%	0.5%	1175
San Andrés	31.8%	14.0%	14.3%	38.4%	1.5%	456
Santa Marta	31.8%	9.7%	9.9%	46.9%	1.8%	5712
Santander	29.8%	8.6%	7.2%	53.4%	1.0%	7595

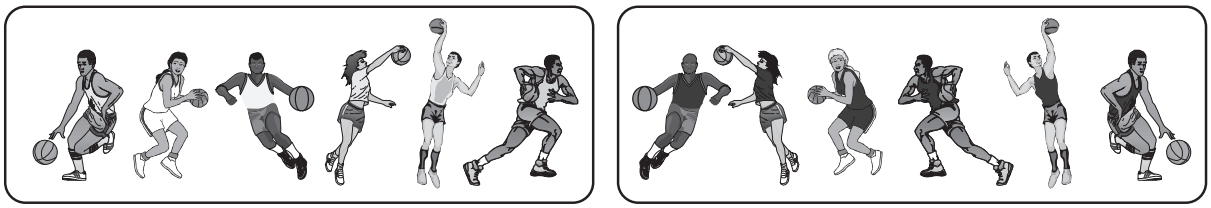
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	29.9%	11.5%	11.4%	45.9%	1.3%	2977
Soacha	27.4%	8.3%	7.0%	56.1%	1.3%	5332
Sogamoso	20.3%	8.5%	6.1%	64.9%	0.2%	1357
Soledad	28.9%	10.2%	8.0%	51.4%	1.4%	4982
Sucre	36.0%	13.0%	12.3%	36.9%	1.9%	7541
Tolima	34.8%	10.7%	9.2%	43.8%	1.6%	9164
Tuluá	27.3%	10.6%	7.0%	54.5%	0.6%	2044
Tumaco	34.8%	14.6%	13.1%	34.0%	3.5%	2344
Tunja	20.1%	7.2%	4.8%	67.5%	0.4%	1636
Turbo	36.0%	13.1%	14.6%	34.9%	1.4%	2127
Uribia	38.5%	9.9%	16.7%	31.4%	3.5%	1278
Valle del Cauca	29.1%	11.2%	9.0%	49.3%	1.3%	7967
Valledupar	30.2%	9.5%	8.4%	50.0%	1.9%	4933
Vaupés	31.8%	13.4%	14.3%	37.7%	2.7%	440
Vichada	27.9%	11.4%	9.9%	47.7%	3.0%	788
Villavicencio	24.7%	9.6%	7.1%	57.3%	1.3%	5053
Yopal	24.7%	10.3%	9.8%	54.8%	0.5%	1890
Yumbo	33.4%	10.7%	8.1%	46.4%	1.4%	1259
Zipaquirá	19.6%	6.6%	6.0%	67.1%	0.7%	1260
Colombia	28.6%	9.9%	8.8%	51.1%	1.6%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 17.

A un entrenamiento de basquetbol asisten 12 jugadores. El entrenador conformó dos equipos (ver figura).



Equipo 1 **Equipo 2**

Figura

Si después el entrenador conformó tres equipos con la misma cantidad de jugadores, ¿con cuántos jugadores conformó cada equipo?

A. 3
B. 4
C. 8
D. 9

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver y formular problemas sencillos de proporcionalidad directa e inversa.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	23.8%	36.7%	17.8%	17.4%	4.3%	736
Antioquia	18.0%	52.9%	12.9%	14.6%	1.6%	24802
Apartadó	17.9%	47.3%	15.6%	17.4%	1.8%	1445
Arauca	17.0%	59.5%	10.5%	11.8%	1.0%	2692
Armenia	18.6%	53.0%	12.8%	14.2%	1.5%	2230
Atlántico	18.9%	47.9%	13.8%	17.2%	2.3%	5607
Barrancabermeja	17.9%	56.0%	11.6%	12.8%	1.7%	2152
Barranquilla	19.3%	53.4%	12.2%	13.6%	1.5%	10999
Bello	17.6%	56.3%	12.5%	12.6%	1.0%	4001
Bogotá, D.C.	16.1%	60.2%	11.1%	11.2%	1.5%	59879
Bolívar	21.2%	40.6%	16.3%	19.8%	2.1%	10594
Boyacá	15.9%	59.7%	11.9%	11.5%	1.0%	7877
Bucaramanga	15.7%	63.9%	9.4%	10.0%	1.0%	4497
Buenaventura	21.7%	48.9%	11.3%	16.2%	1.8%	4081
Buga	18.8%	52.6%	12.9%	14.5%	1.1%	982
Caldas	17.6%	55.5%	11.8%	14.2%	1.0%	5431
Cali	19.1%	54.1%	12.0%	13.1%	1.6%	18250
Caquetá	19.4%	54.1%	10.7%	13.9%	2.0%	2810
Cartagena	19.3%	49.7%	13.7%	15.4%	1.9%	10093
Cartago	18.1%	51.0%	13.8%	16.6%	0.5%	1174
Casanare	18.1%	56.4%	11.8%	12.7%	1.0%	3180
Cauca	19.8%	53.0%	11.0%	14.1%	2.1%	11686
Cesar	19.3%	51.4%	13.1%	14.6%	1.6%	7426
Chocó	20.9%	44.4%	14.3%	17.4%	3.1%	3398
Chía	14.7%	64.1%	10.0%	10.5%	0.6%	1433
Ciénaga	19.8%	47.4%	12.4%	17.6%	2.9%	1356
Cundinamarca	16.3%	60.2%	10.6%	11.7%	1.2%	15057
Córdoba	20.4%	44.8%	15.6%	17.6%	1.7%	12663
Cúcuta	17.5%	59.0%	11.6%	10.8%	1.1%	6776
Dosquebradas	18.1%	57.8%	11.2%	12.5%	0.4%	1637
Duitama	12.7%	66.8%	10.7%	9.1%	0.7%	1186
Envigado	14.5%	66.0%	8.8%	9.6%	1.1%	1219
Facatativá	13.8%	62.4%	11.3%	11.9%	0.6%	1254
Florencia	19.1%	51.2%	14.3%	13.7%	1.6%	1922
Floridablanca	14.7%	65.6%	9.9%	9.0%	0.8%	2345
Fusagasugá	16.1%	60.0%	10.6%	11.0%	2.3%	1056
Girardot	18.6%	51.2%	14.0%	15.0%	1.2%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	14.8%	60.0%	11.7%	12.9%	0.6%	1423
Guainía	24.9%	41.7%	16.3%	15.5%	1.5%	465
Guaviare	18.9%	53.3%	11.9%	13.4%	2.4%	872
Huila	19.5%	54.8%	11.6%	12.7%	1.3%	7408
Ibagué	17.7%	56.2%	12.4%	12.4%	1.4%	4917
Ipiales	16.3%	60.0%	10.8%	12.3%	0.6%	1387
Itagüí	18.5%	51.7%	15.6%	13.3%	1.0%	1659
Jamundí	20.5%	48.1%	15.1%	14.1%	2.2%	1101
La Guajira	20.6%	47.2%	13.7%	16.5%	1.9%	3849
Lorica	19.3%	45.3%	16.4%	17.8%	1.2%	1275
Magangué	20.8%	40.3%	16.6%	20.6%	1.7%	1386
Magdalena	20.3%	45.6%	14.0%	17.8%	2.4%	8758
Maicao	20.9%	42.7%	14.3%	19.4%	2.7%	2126
Malambo	18.6%	53.4%	13.5%	13.3%	1.2%	1015
Manizales	17.1%	56.7%	13.0%	12.5%	0.6%	2709
Medellín	17.7%	52.2%	14.0%	14.4%	1.6%	17825
Meta	19.5%	52.7%	13.3%	13.2%	1.3%	5547
Montería	20.3%	46.0%	15.2%	17.1%	1.4%	4560
Mosquera	16.8%	59.4%	10.8%	11.5%	1.5%	1229
Nariño	17.1%	58.3%	10.0%	11.8%	2.8%	9348
Neiva	20.8%	53.0%	12.9%	12.3%	1.0%	3487
Norte de Santander	16.7%	58.7%	11.6%	11.8%	1.2%	7482
Palmira	18.0%	55.4%	12.6%	12.6%	1.4%	2732
Pasto	17.3%	58.7%	11.1%	11.6%	1.2%	3724
Pereira	17.4%	58.3%	10.8%	11.9%	1.6%	3667
Piedecuesta	15.1%	60.9%	11.3%	11.2%	1.6%	1279
Pitalito	20.8%	53.8%	10.5%	12.8%	2.1%	1501
Popayán	17.8%	58.6%	10.5%	11.6%	1.4%	2631
Putumayo	20.1%	53.1%	12.4%	12.9%	1.5%	3619
Quibdó	18.3%	44.3%	14.2%	19.3%	3.8%	1123
Quindío	18.0%	52.3%	13.2%	14.1%	2.3%	2086
Riohacha	20.3%	45.9%	14.6%	16.4%	2.9%	2439
Rionegro	16.7%	59.7%	11.8%	11.3%	0.5%	1000
Risaralda	17.4%	54.3%	12.0%	14.3%	1.9%	2444
Sabaneta	18.8%	59.8%	10.4%	7.3%	3.8%	480
Sahagún	19.7%	48.9%	14.1%	16.5%	0.8%	1175
San Andrés	20.4%	37.5%	19.5%	21.3%	1.3%	456
Santa Marta	18.9%	50.6%	13.7%	15.1%	1.7%	5712
Santander	16.5%	60.9%	10.1%	11.5%	1.0%	7595

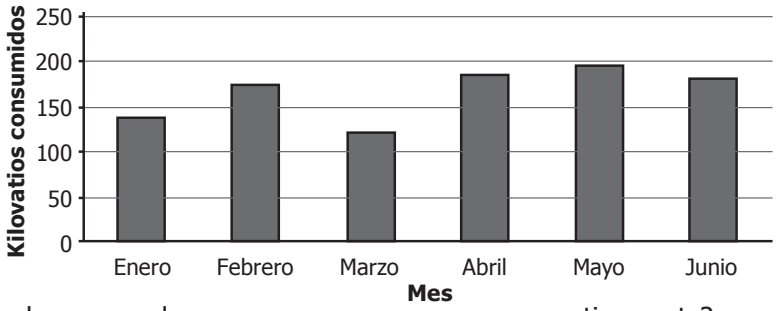
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	20.5%	48.0%	14.1%	16.5%	0.9%	2977
Soacha	17.6%	56.7%	12.6%	11.6%	1.5%	5332
Sogamoso	15.5%	62.9%	12.6%	8.8%	0.3%	1357
Soledad	19.9%	53.2%	11.9%	13.8%	1.3%	4982
Sucre	20.7%	44.7%	14.4%	18.7%	1.5%	7541
Tolima	19.9%	51.0%	13.6%	14.2%	1.3%	9164
Tuluá	17.9%	55.2%	13.5%	12.7%	0.7%	2044
Tumaco	20.0%	40.7%	16.7%	19.7%	2.9%	2344
Tunja	11.9%	68.2%	10.1%	9.4%	0.5%	1636
Turbo	19.2%	43.8%	16.7%	19.0%	1.3%	2127
Uribia	25.6%	30.8%	17.3%	23.3%	3.0%	1278
Valle del Cauca	19.8%	51.1%	13.1%	14.7%	1.4%	7967
Valledupar	18.7%	52.5%	12.6%	14.3%	1.8%	4933
Vaupés	25.7%	35.5%	18.4%	18.6%	1.8%	440
Vichada	21.8%	47.3%	13.3%	14.6%	2.9%	788
Villavicencio	17.1%	58.6%	12.0%	10.9%	1.4%	5053
Yopal	18.6%	54.2%	14.0%	12.4%	0.7%	1890
Yumbo	19.4%	51.5%	12.9%	14.9%	1.3%	1259
Zipaquirá	15.5%	64.2%	9.5%	10.4%	0.4%	1260
Colombia	18.3%	54.0%	12.5%	13.7%	1.6%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 18.

La gráfica muestra el consumo de energía de la familia Suárez durante los 6 primeros meses del año.



Gráfica

¿Cuáles fueron los meses de menor y mayor consumo, respectivamente?

A. Enero y junio.
B. Febrero y mayo.
C. Marzo y junio.
D. Marzo y mayo.

• Estructura

Competencia	Comunicación
Componente	Aleatorio
Afirmación	Describir e Interpretar datos relativos a situaciones del entorno escolar.
Nivel de desempeño	Mínimo
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	18.9%	21.2%	14.5%	40.4%	5.0%	736
Antioquia	15.6%	16.8%	9.9%	56.2%	1.5%	24802
Apartadó	19.7%	18.3%	11.2%	49.2%	1.6%	1445
Arauca	10.8%	15.3%	8.4%	65.0%	0.4%	2692
Armenia	12.4%	13.5%	9.2%	63.6%	1.3%	2230
Atlántico	15.7%	19.6%	10.7%	52.2%	1.9%	5607
Barrancabermeja	11.9%	14.5%	9.3%	63.2%	1.1%	2152
Barranquilla	13.0%	14.6%	8.6%	62.7%	1.1%	10999
Bello	13.7%	13.6%	8.6%	63.6%	0.5%	4001
Bogotá, D.C.	9.1%	11.2%	7.8%	70.7%	1.2%	59879
Bolívar	20.0%	22.7%	12.6%	43.1%	1.6%	10594
Boyacá	10.3%	14.9%	9.5%	64.6%	0.7%	7877
Bucaramanga	8.7%	9.8%	7.6%	73.3%	0.6%	4497
Buenaventura	16.0%	17.9%	10.0%	54.7%	1.4%	4081
Buga	13.4%	14.1%	8.9%	62.3%	1.3%	982
Caldas	12.2%	15.7%	9.8%	61.5%	0.8%	5431
Cali	11.4%	13.1%	8.5%	65.6%	1.4%	18250
Caquetá	13.3%	19.3%	10.6%	55.2%	1.7%	2810
Cartagena	15.4%	16.8%	9.7%	56.4%	1.7%	10093
Cartago	13.5%	15.3%	10.4%	60.6%	0.2%	1174
Casanare	12.2%	16.2%	9.1%	61.7%	0.8%	3180
Cauca	13.0%	18.3%	10.1%	56.9%	1.7%	11686
Cesar	14.9%	17.7%	11.1%	55.1%	1.2%	7426
Chocó	20.5%	21.4%	11.7%	44.2%	2.2%	3398
Chía	7.0%	10.0%	6.5%	76.0%	0.5%	1433
Ciénaga	15.9%	19.8%	12.5%	49.8%	2.0%	1356
Cundinamarca	10.0%	13.4%	8.5%	67.3%	0.8%	15057
Córdoba	19.0%	21.3%	12.0%	46.5%	1.2%	12663
Cúcuta	10.4%	11.8%	7.6%	69.6%	0.6%	6776
Dosquebradas	8.8%	13.1%	8.7%	68.9%	0.5%	1637
Duitama	8.6%	10.1%	7.3%	73.8%	0.3%	1186
Envigado	10.0%	9.8%	6.9%	72.8%	0.4%	1219
Facatativá	9.4%	10.3%	9.6%	70.3%	0.5%	1254
Florencia	13.6%	16.3%	8.9%	59.7%	1.4%	1922
Floridablanca	8.9%	9.6%	7.3%	73.4%	0.8%	2345
Fusagasugá	7.5%	10.8%	8.7%	70.6%	2.4%	1056
Girardot	13.9%	16.2%	9.7%	59.5%	0.7%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	9.4%	13.1%	8.2%	68.9%	0.4%	1423
Guainía	15.7%	22.2%	15.5%	45.6%	1.1%	465
Guaviare	14.7%	17.7%	10.7%	54.9%	2.1%	872
Huila	10.9%	15.6%	9.9%	62.5%	1.1%	7408
Ibagué	11.4%	13.7%	8.8%	65.1%	1.1%	4917
Ipiales	12.3%	14.3%	9.6%	63.1%	0.8%	1387
Itagüí	16.2%	14.3%	9.2%	60.2%	0.2%	1659
Jamundí	15.3%	17.9%	10.5%	54.7%	1.5%	1101
La Guajira	18.0%	20.5%	11.6%	48.1%	1.8%	3849
Lorica	17.6%	21.0%	9.6%	50.7%	1.0%	1275
Magangué	20.1%	21.3%	12.4%	44.6%	1.7%	1386
Magdalena	17.9%	21.6%	11.6%	46.7%	2.2%	8758
Maicao	19.2%	19.8%	11.4%	46.9%	2.7%	2126
Malambo	14.7%	17.2%	10.3%	56.6%	1.2%	1015
Manizales	10.2%	13.0%	8.9%	67.5%	0.4%	2709
Medellín	15.8%	15.9%	9.4%	57.5%	1.4%	17825
Meta	13.4%	16.1%	9.7%	59.7%	1.1%	5547
Montería	17.4%	18.3%	11.1%	52.2%	0.9%	4560
Mosquera	11.5%	12.0%	8.2%	67.2%	1.1%	1229
Nariño	12.3%	14.5%	9.3%	61.2%	2.7%	9348
Neiva	10.4%	14.3%	8.6%	65.8%	1.0%	3487
Norte de Santander	11.5%	14.7%	9.0%	63.9%	0.8%	7482
Palmira	9.9%	13.2%	8.8%	67.0%	1.1%	2732
Pasto	10.2%	12.6%	9.1%	67.1%	1.1%	3724
Pereira	9.6%	14.7%	8.5%	65.8%	1.4%	3667
Piedecuesta	10.1%	10.9%	7.6%	70.1%	1.3%	1279
Pitalito	11.1%	15.1%	9.1%	63.0%	1.9%	1501
Popayán	9.6%	12.0%	8.4%	69.1%	0.9%	2631
Putumayo	14.2%	16.6%	9.8%	58.1%	1.3%	3619
Quibdó	14.4%	18.7%	12.6%	51.2%	3.1%	1123
Quindío	11.4%	17.4%	9.6%	59.7%	1.9%	2086
Riohacha	18.4%	19.8%	10.8%	48.9%	2.1%	2439
Rionegro	12.6%	12.7%	9.7%	64.7%	0.3%	1000
Risaralda	14.0%	18.0%	8.4%	57.9%	1.8%	2444
Sabaneta	9.8%	8.8%	6.7%	71.7%	3.1%	480
Sahagún	14.8%	18.9%	11.9%	54.0%	0.3%	1175
San Andrés	20.8%	17.5%	11.4%	48.7%	1.5%	456
Santa Marta	14.0%	18.2%	10.0%	56.5%	1.2%	5712
Santander	10.5%	13.6%	8.7%	66.4%	0.8%	7595

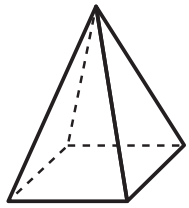
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	15.7%	18.1%	10.7%	54.8%	0.7%	2977
Soacha	11.3%	12.3%	8.6%	66.8%	1.0%	5332
Sogamoso	10.1%	10.5%	7.4%	71.7%	0.3%	1357
Soledad	12.7%	14.4%	9.0%	62.6%	1.3%	4982
Sucre	18.5%	21.5%	11.5%	47.3%	1.2%	7541
Tolima	12.9%	18.6%	10.6%	56.7%	1.1%	9164
Tuluá	11.2%	13.3%	10.1%	64.8%	0.7%	2044
Tumaco	19.6%	22.7%	12.8%	42.3%	2.6%	2344
Tunja	7.8%	10.1%	6.8%	75.1%	0.2%	1636
Turbo	21.6%	22.1%	11.1%	44.1%	1.1%	2127
Uribia	25.3%	20.1%	13.1%	38.5%	3.1%	1278
Valle del Cauca	12.7%	16.5%	9.7%	60.2%	0.9%	7967
Valledupar	11.8%	16.9%	8.4%	61.3%	1.6%	4933
Vaupés	16.8%	33.2%	12.0%	36.8%	1.1%	440
Vichada	15.7%	19.0%	10.9%	51.6%	2.7%	788
Villavicencio	10.2%	12.1%	7.9%	68.7%	1.1%	5053
Yopal	12.9%	15.3%	9.5%	62.0%	0.3%	1890
Yumbo	10.8%	15.9%	9.4%	63.5%	0.5%	1259
Zipaquirá	7.5%	10.2%	8.1%	73.9%	0.3%	1260
Colombia	13.0%	15.5%	9.4%	60.7%	1.3%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 19.

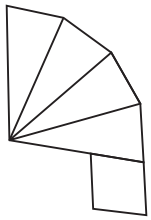
David quiere armar una pirámide como la de la figura.



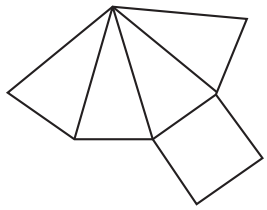
Figura

¿Cuál de los siguientes moldes le sirve a David para armar la pirámide?

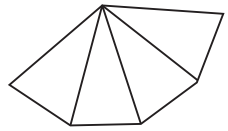
A.



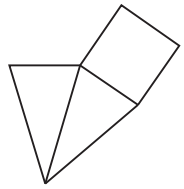
B.



C.



D.



• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Relacionar objetos tridimensionales y sus propiedades con sus respectivos desarrollos planos.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	9.5%	32.9%	23.9%	28.0%	5.7%	736
Antioquia	10.0%	41.4%	19.8%	27.1%	1.7%	24802
Apartadó	12.1%	36.5%	23.3%	26.1%	1.9%	1445
Arauca	9.4%	48.7%	16.6%	24.4%	0.9%	2692
Armenia	10.5%	50.2%	18.4%	19.4%	1.5%	2230
Atlántico	9.0%	40.1%	20.2%	28.2%	2.5%	5607
Barrancabermeja	9.8%	48.5%	18.0%	22.0%	1.7%	2152
Barranquilla	8.9%	48.6%	18.4%	22.5%	1.6%	10999
Bello	9.8%	51.7%	17.1%	20.3%	1.1%	4001
Bogotá, D.C.	8.6%	58.0%	15.5%	16.5%	1.4%	59879
Bolívar	11.2%	32.9%	22.7%	30.8%	2.4%	10594
Boyacá	8.6%	53.0%	16.1%	21.2%	1.1%	7877
Bucaramanga	8.5%	60.0%	14.5%	16.1%	0.9%	4497
Buenaventura	9.7%	36.8%	19.1%	32.4%	2.0%	4081
Buga	10.3%	44.7%	19.7%	23.5%	1.8%	982
Caldas	9.0%	46.0%	19.1%	24.8%	1.2%	5431
Cali	9.5%	51.3%	16.8%	20.7%	1.8%	18250
Caquetá	8.9%	41.3%	18.9%	28.7%	2.2%	2810
Cartagena	10.1%	45.3%	18.8%	23.9%	1.9%	10093
Cartago	9.5%	51.1%	17.9%	20.8%	0.7%	1174
Casanare	9.4%	47.5%	18.5%	23.5%	1.0%	3180
Cauca	7.8%	43.5%	17.8%	28.8%	2.1%	11686
Cesar	9.7%	39.5%	19.5%	29.3%	1.9%	7426
Chocó	10.5%	31.5%	20.4%	34.5%	3.0%	3398
Chía	8.3%	60.2%	14.0%	17.1%	0.4%	1433
Ciénaga	10.6%	35.6%	21.0%	29.5%	3.2%	1356
Cundinamarca	9.1%	53.0%	16.7%	20.2%	1.1%	15057
Córdoba	10.5%	34.3%	22.5%	30.8%	1.9%	12663
Cúcuta	9.0%	53.4%	17.9%	18.8%	1.0%	6776
Dosquebradas	9.0%	47.6%	19.5%	23.5%	0.4%	1637
Duitama	8.7%	60.5%	13.5%	16.4%	0.8%	1186
Envigado	8.1%	59.6%	14.6%	16.8%	0.8%	1219
Facatativá	9.1%	57.7%	15.4%	17.3%	0.6%	1254
Florencia	9.1%	44.1%	22.2%	23.0%	1.5%	1922
Floridablanca	8.7%	62.0%	14.0%	14.5%	0.9%	2345
Fusagasugá	8.9%	55.8%	14.9%	18.1%	2.4%	1056
Girardot	11.6%	43.6%	19.8%	24.4%	0.7%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	9.4%	54.9%	15.7%	19.5%	0.6%	1423
Guainía	10.8%	38.3%	16.1%	31.2%	3.7%	465
Guaviare	8.8%	42.3%	17.5%	28.9%	2.4%	872
Huila	8.6%	49.3%	17.7%	23.2%	1.3%	7408
Ibagué	8.7%	53.3%	17.9%	18.6%	1.5%	4917
Ipiales	9.7%	50.1%	17.7%	21.6%	1.0%	1387
Itagüí	12.2%	47.6%	20.0%	19.7%	0.7%	1659
Jamundí	10.6%	42.7%	18.4%	25.8%	2.5%	1101
La Guajira	9.4%	41.4%	20.5%	26.7%	2.0%	3849
Lorica	10.7%	37.6%	21.2%	29.0%	1.6%	1275
Magangué	10.3%	34.4%	22.8%	30.4%	2.0%	1386
Magdalena	9.5%	34.3%	19.8%	33.7%	2.7%	8758
Maicao	9.1%	37.2%	23.2%	27.0%	3.4%	2126
Malambo	9.1%	47.1%	18.2%	23.5%	2.1%	1015
Manizales	10.2%	53.5%	17.8%	17.9%	0.7%	2709
Medellín	11.8%	46.3%	19.5%	20.5%	1.9%	17825
Meta	9.8%	45.6%	19.0%	24.4%	1.3%	5547
Montería	11.0%	41.1%	21.6%	24.9%	1.5%	4560
Mosquera	9.8%	57.5%	13.2%	18.3%	1.1%	1229
Nariño	7.6%	46.9%	16.3%	26.2%	3.0%	9348
Neiva	9.5%	52.7%	16.3%	20.2%	1.2%	3487
Norte de Santander	8.4%	48.4%	18.3%	23.5%	1.3%	7482
Palmira	9.8%	56.7%	14.0%	18.2%	1.3%	2732
Pasto	9.4%	56.2%	14.1%	19.1%	1.2%	3724
Pereira	8.6%	50.5%	18.1%	21.1%	1.7%	3667
Piedecuesta	8.3%	55.8%	15.7%	18.4%	1.8%	1279
Pitalito	8.8%	49.4%	18.3%	20.9%	2.7%	1501
Popayán	9.7%	54.0%	16.7%	18.5%	1.1%	2631
Putumayo	9.7%	48.7%	17.5%	22.5%	1.5%	3619
Quibdó	8.2%	39.6%	19.2%	29.5%	3.5%	1123
Quindío	10.5%	45.4%	18.5%	23.2%	2.3%	2086
Riohacha	10.6%	38.0%	19.5%	29.2%	2.7%	2439
Rionegro	9.9%	55.1%	16.5%	18.0%	0.5%	1000
Risaralda	9.1%	44.1%	19.1%	25.5%	2.1%	2444
Sabaneta	11.9%	51.0%	16.0%	17.9%	3.1%	480
Sahagún	8.4%	42.5%	18.7%	29.5%	0.9%	1175
San Andrés	11.4%	34.4%	24.1%	26.3%	3.7%	456
Santa Marta	9.1%	43.6%	19.7%	26.0%	1.7%	5712
Santander	8.2%	51.1%	16.7%	23.1%	1.0%	7595

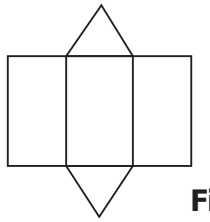
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	9.9%	41.6%	22.0%	25.4%	1.1%	2977
Soacha	9.0%	52.9%	17.0%	19.6%	1.5%	5332
Sogamoso	9.9%	57.0%	16.2%	16.7%	0.1%	1357
Soledad	8.8%	50.1%	17.5%	21.8%	1.8%	4982
Sucre	10.6%	34.2%	22.2%	31.4%	1.7%	7541
Tolima	9.2%	43.0%	20.2%	26.1%	1.6%	9164
Tuluá	9.6%	49.1%	19.0%	21.1%	1.2%	2044
Tumaco	12.6%	31.3%	22.4%	30.8%	2.9%	2344
Tunja	7.6%	62.0%	14.7%	15.2%	0.5%	1636
Turbo	11.5%	30.8%	25.2%	30.7%	1.8%	2127
Uribia	12.8%	33.7%	26.2%	23.9%	3.4%	1278
Valle del Cauca	8.7%	46.5%	19.2%	24.3%	1.3%	7967
Valledupar	8.9%	44.2%	18.6%	26.3%	2.0%	4933
Vaupés	13.4%	33.0%	21.4%	31.1%	1.1%	440
Vichada	9.3%	40.2%	20.8%	26.5%	3.2%	788
Villavicencio	8.9%	55.1%	15.9%	18.7%	1.5%	5053
Yopal	10.9%	50.5%	18.0%	19.8%	0.7%	1890
Yumbo	9.5%	47.4%	19.1%	22.7%	1.3%	1259
Zipaquirá	9.8%	59.0%	13.5%	17.2%	0.5%	1260
Colombia	9.4%	47.5%	18.2%	23.2%	1.6%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 20.

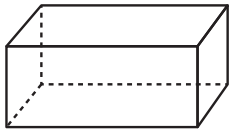
Javier quiere armar un sólido con el molde de la figura.



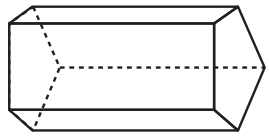
Figura

¿Cuál de los siguientes sólidos se puede armar con el molde?

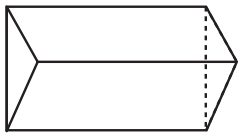
A.



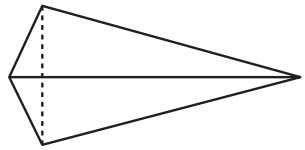
B.



C.



D.



• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Relacionar objetos tridimensionales y sus propiedades con sus respectivos desarrollos planos.
Nivel de desempeño	Mínimo
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	21.6%	18.9%	42.4%	10.9%	6.3%	736
Antioquia	18.6%	15.8%	54.2%	9.6%	1.8%	24802
Apartadó	19.4%	19.7%	48.7%	10.5%	1.7%	1445
Arauca	16.3%	13.6%	61.6%	7.6%	0.8%	2692
Armenia	13.8%	14.3%	63.0%	7.2%	1.7%	2230
Atlántico	19.4%	15.1%	53.0%	10.0%	2.6%	5607
Barrancabermeja	15.5%	12.4%	63.2%	7.6%	1.3%	2152
Barranquilla	14.5%	13.5%	63.0%	7.5%	1.6%	10999
Bello	13.7%	13.1%	63.8%	8.4%	0.9%	4001
Bogotá, D.C.	10.7%	11.5%	70.7%	5.7%	1.4%	59879
Bolívar	21.5%	18.0%	45.0%	13.1%	2.4%	10594
Boyacá	13.4%	14.0%	64.4%	7.3%	0.9%	7877
Bucaramanga	11.2%	10.7%	71.8%	5.4%	0.8%	4497
Buenaventura	21.9%	14.7%	51.6%	9.9%	2.0%	4081
Buga	15.0%	15.1%	60.8%	7.8%	1.3%	982
Caldas	16.5%	16.2%	58.2%	8.0%	1.1%	5431
Cali	13.2%	12.6%	65.9%	6.4%	1.8%	18250
Caquetá	19.6%	15.2%	53.7%	9.5%	2.0%	2810
Cartagena	17.1%	15.4%	56.8%	8.9%	1.9%	10093
Cartago	12.4%	15.6%	61.6%	9.5%	0.9%	1174
Casanare	16.5%	14.3%	59.7%	8.3%	1.3%	3180
Cauca	18.2%	15.1%	56.2%	8.4%	2.1%	11686
Cesar	20.1%	15.7%	52.3%	10.0%	2.0%	7426
Chocó	24.8%	18.4%	40.4%	13.4%	3.0%	3398
Chía	6.6%	9.1%	80.3%	3.5%	0.5%	1433
Ciénaga	18.8%	15.5%	51.3%	10.8%	3.5%	1356
Cundinamarca	12.7%	12.3%	67.2%	6.7%	1.1%	15057
Córdoba	22.0%	17.4%	46.9%	11.9%	1.8%	12663
Cúcuta	15.2%	13.0%	64.1%	6.7%	1.0%	6776
Dosquebradas	12.5%	12.7%	67.8%	6.3%	0.7%	1637
Duitama	9.5%	9.5%	75.2%	5.1%	0.6%	1186
Envigado	8.2%	10.4%	75.3%	5.4%	0.7%	1219
Facatativá	10.8%	11.8%	71.0%	5.8%	0.6%	1254
Florencia	20.7%	15.8%	54.6%	7.3%	1.7%	1922
Floridablanca	9.0%	9.7%	75.4%	5.1%	0.8%	2345
Fusagasugá	11.4%	9.8%	70.3%	6.4%	2.2%	1056
Girardot	17.9%	16.8%	57.2%	7.2%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	12.4%	13.0%	67.6%	6.4%	0.6%	1423
Guainía	22.2%	17.8%	48.8%	8.8%	2.4%	465
Guaviare	14.8%	14.1%	59.6%	8.8%	2.6%	872
Huila	15.4%	12.9%	62.8%	7.7%	1.2%	7408
Ibagué	13.0%	13.0%	66.1%	6.4%	1.4%	4917
Ipiales	12.2%	16.3%	63.4%	7.1%	1.0%	1387
Itagüí	15.3%	14.6%	61.4%	8.1%	0.7%	1659
Jamundí	16.0%	13.7%	59.1%	8.5%	2.6%	1101
La Guajira	19.5%	16.8%	49.7%	11.8%	2.3%	3849
Lorica	23.5%	15.9%	48.2%	10.9%	1.5%	1275
Magangué	18.4%	17.0%	49.0%	13.6%	2.1%	1386
Magdalena	22.3%	16.3%	47.6%	11.2%	2.7%	8758
Maicao	19.6%	17.5%	47.9%	11.8%	3.2%	2126
Malambo	15.6%	13.1%	61.8%	8.1%	1.5%	1015
Manizales	12.7%	13.2%	67.1%	6.5%	0.6%	2709
Medellín	14.9%	15.0%	59.0%	9.2%	1.9%	17825
Meta	17.8%	15.3%	57.5%	8.0%	1.4%	5547
Montería	18.0%	16.3%	53.7%	10.6%	1.5%	4560
Mosquera	9.4%	11.4%	70.8%	7.0%	1.5%	1229
Nariño	16.5%	14.1%	58.6%	7.6%	3.1%	9348
Neiva	13.6%	11.8%	66.4%	7.0%	1.2%	3487
Norte de Santander	16.7%	13.8%	60.7%	7.4%	1.3%	7482
Palmira	11.1%	12.0%	69.4%	6.4%	1.1%	2732
Pasto	10.5%	12.8%	69.8%	5.6%	1.3%	3724
Pereira	13.8%	12.8%	64.9%	6.9%	1.6%	3667
Piedecuesta	14.2%	11.1%	67.5%	5.6%	1.6%	1279
Pitalito	12.7%	12.3%	66.6%	6.3%	2.1%	1501
Popayán	12.7%	12.3%	67.8%	5.9%	1.4%	2631
Putumayo	16.6%	13.9%	59.3%	8.5%	1.7%	3619
Quibdó	22.4%	15.8%	49.1%	9.2%	3.6%	1123
Quindío	17.3%	14.8%	58.0%	7.4%	2.6%	2086
Riohacha	18.5%	17.8%	51.0%	9.6%	3.1%	2439
Rionegro	9.9%	13.5%	68.3%	7.8%	0.5%	1000
Risaralda	15.8%	16.0%	58.7%	7.4%	2.0%	2444
Sabaneta	10.0%	9.6%	70.4%	7.1%	2.9%	480
Sahagún	19.8%	15.7%	55.1%	8.4%	1.0%	1175
San Andrés	21.3%	18.2%	48.0%	10.3%	2.2%	456
Santa Marta	18.3%	13.9%	57.8%	8.2%	1.8%	5712
Santander	15.5%	13.7%	63.1%	6.9%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	16.9%	14.5%	57.8%	9.5%	1.4%	2977
Soacha	11.9%	13.5%	66.8%	6.4%	1.4%	5332
Sogamoso	11.3%	11.9%	70.8%	5.7%	0.2%	1357
Soledad	14.1%	12.5%	63.4%	8.4%	1.7%	4982
Sucre	21.7%	17.6%	47.0%	12.0%	1.8%	7541
Tolima	19.6%	15.5%	54.9%	8.8%	1.3%	9164
Tuluá	13.9%	14.4%	63.8%	6.7%	1.1%	2044
Tumaco	22.4%	20.1%	41.1%	13.2%	3.2%	2344
Tunja	7.3%	9.7%	78.1%	4.6%	0.4%	1636
Turbo	23.3%	19.6%	41.7%	13.4%	2.0%	2127
Uribia	19.4%	18.0%	41.3%	17.4%	3.9%	1278
Valle del Cauca	17.1%	14.5%	59.0%	8.0%	1.5%	7967
Valledupar	17.7%	14.4%	57.5%	8.2%	2.1%	4933
Vaupés	22.3%	18.4%	44.3%	13.2%	1.8%	440
Vichada	15.5%	18.1%	52.7%	10.5%	3.2%	788
Villavicencio	12.9%	11.8%	66.9%	7.0%	1.4%	5053
Yopal	15.3%	14.6%	61.8%	7.6%	0.7%	1890
Yumbo	17.3%	14.3%	60.7%	6.8%	1.0%	1259
Zipaquirá	10.2%	10.7%	71.9%	6.9%	0.2%	1260
Colombia	15.7%	14.1%	60.3%	8.2%	1.6%	452696

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 21.

Jorge aprendió en clase que los símbolos > y < representan las relaciones "mayor que" y "menor que" entre dos cantidades.

Él relaciona dos números así: 928 > 750. ¿Cómo se lee esa relación?

A. 928 es menor que 750.

B. 750 es mayor que 928.

C. 928 es mayor que 750.

D. 750 es igual a 928.

• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Traducir relaciones numéricas expresadas gráfica y simbólicamente.
Nivel de desempeño	Mínimo
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	20.1%	11.3%	60.2%	5.3%	3.1%	736
Antioquia	18.2%	7.4%	70.3%	3.1%	1.0%	24803
Apartadó	19.7%	8.3%	67.5%	3.5%	1.0%	1444
Arauca	13.7%	6.5%	77.4%	2.0%	0.3%	2691
Armenia	14.9%	5.2%	76.8%	2.2%	0.9%	2231
Atlántico	19.2%	8.3%	66.7%	4.4%	1.4%	5606
Barrancabermeja	13.7%	6.5%	76.9%	2.2%	0.8%	2152
Barranquilla	14.3%	6.2%	76.3%	2.5%	0.7%	11002
Bello	17.0%	6.2%	74.5%	1.7%	0.5%	4003
Bogotá, D.C.	12.7%	4.7%	80.5%	1.5%	0.6%	59884
Bolívar	21.9%	11.0%	60.5%	5.5%	1.1%	10595
Boyacá	15.0%	6.2%	76.6%	1.7%	0.5%	7882
Bucaramanga	10.3%	4.0%	84.1%	1.3%	0.4%	4495
Buenaventura	17.1%	7.6%	70.3%	4.1%	1.0%	4078
Buga	14.6%	7.2%	75.2%	1.8%	1.2%	982
Caldas	15.4%	5.7%	76.4%	2.2%	0.3%	5432
Cali	13.6%	5.3%	78.4%	1.9%	0.9%	18250
Caquetá	17.0%	6.3%	72.1%	3.1%	1.4%	2804
Cartagena	18.5%	8.0%	68.9%	3.4%	1.1%	10090
Cartago	14.5%	6.5%	77.0%	1.8%	0.3%	1174
Casanare	15.9%	6.3%	75.8%	1.6%	0.4%	3180
Cauca	16.1%	7.6%	71.6%	3.4%	1.2%	11687
Cesar	17.0%	8.1%	69.9%	3.8%	1.2%	7427
Chocó	21.1%	11.1%	59.7%	6.2%	1.8%	3397
Chía	9.6%	4.0%	85.1%	0.9%	0.3%	1433
Ciénaga	18.4%	8.2%	66.4%	5.3%	1.7%	1356
Cundinamarca	12.7%	5.3%	80.0%	1.6%	0.4%	15056
Córdoba	21.9%	9.8%	62.0%	5.3%	0.9%	12660
Cúcuta	13.3%	5.6%	79.2%	1.5%	0.5%	6778
Dosquebradas	12.2%	4.8%	81.6%	1.3%	0.1%	1637
Duitama	11.6%	4.4%	82.9%	0.8%	0.3%	1186
Envigado	12.4%	4.5%	81.7%	1.3%	0.1%	1216
Facatativá	12.1%	4.5%	81.3%	1.6%	0.4%	1254
Florencia	16.5%	6.2%	73.9%	2.7%	0.7%	1924
Floridablanca	11.1%	4.1%	83.0%	1.3%	0.4%	2345
Fusagasugá	12.1%	5.8%	78.8%	1.8%	1.5%	1056
Girardot	17.9%	5.4%	74.2%	2.1%	0.4%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	13.7%	5.4%	79.5%	1.2%	0.2%	1425
Guainía	22.6%	11.6%	59.8%	4.3%	1.7%	465
Guaviare	17.8%	8.2%	70.0%	2.6%	1.3%	874
Huila	14.3%	6.3%	76.5%	2.2%	0.6%	7409
Ibagué	14.3%	5.9%	77.3%	1.7%	0.8%	4915
Ipiales	14.5%	5.0%	78.8%	1.3%	0.4%	1387
Itagüí	18.1%	7.4%	72.2%	1.9%	0.5%	1659
Jamundí	14.5%	6.2%	75.3%	2.9%	1.1%	1101
La Guajira	18.9%	9.3%	65.2%	5.2%	1.5%	3848
Lorica	23.0%	9.7%	60.6%	5.7%	0.9%	1276
Magangué	24.0%	8.6%	61.0%	5.2%	1.2%	1385
Magdalena	20.5%	9.3%	62.9%	5.6%	1.7%	8758
Maicao	22.7%	10.9%	59.4%	5.3%	1.7%	2125
Malambo	16.0%	8.2%	71.8%	3.6%	0.4%	1016
Manizales	14.0%	4.7%	79.6%	1.6%	0.1%	2708
Medellín	18.5%	6.9%	71.1%	2.6%	0.8%	17827
Meta	17.2%	6.9%	73.0%	2.4%	0.5%	5551
Montería	18.9%	9.0%	67.4%	3.9%	0.8%	4560
Mosquera	13.5%	5.1%	79.3%	1.6%	0.5%	1231
Nariño	14.0%	5.8%	75.4%	2.6%	2.2%	9344
Neiva	13.3%	5.3%	79.4%	1.5%	0.5%	3488
Norte de Santander	14.4%	6.1%	76.9%	1.9%	0.7%	7482
Palmira	11.5%	4.6%	81.7%	1.4%	0.8%	2732
Pasto	11.7%	5.1%	80.8%	1.4%	0.9%	3725
Pereira	12.3%	4.9%	80.4%	1.5%	1.0%	3668
Piedecuesta	12.4%	4.9%	80.2%	1.6%	0.9%	1276
Pitalito	14.4%	5.7%	76.2%	2.2%	1.5%	1503
Popayán	13.3%	4.6%	79.7%	1.9%	0.5%	2632
Putumayo	15.5%	7.1%	73.9%	2.6%	1.0%	3619
Quibdó	14.8%	7.6%	70.6%	4.1%	2.9%	1121
Quindío	16.7%	5.6%	74.2%	2.6%	1.0%	2082
Riohacha	18.9%	8.1%	66.7%	4.8%	1.4%	2439
Rionegro	14.8%	5.5%	78.3%	1.0%	0.4%	998
Risaralda	14.3%	6.4%	75.5%	2.5%	1.2%	2443
Sabaneta	10.0%	5.4%	81.1%	0.4%	3.1%	481
Sahagún	17.4%	9.4%	69.3%	3.6%	0.3%	1176
San Andrés	22.8%	8.1%	67.1%	1.3%	0.7%	456
Santa Marta	18.3%	6.1%	72.2%	2.6%	0.7%	5713
Santander	13.4%	5.8%	78.4%	1.8%	0.7%	7595

Continúa en la siguiente página

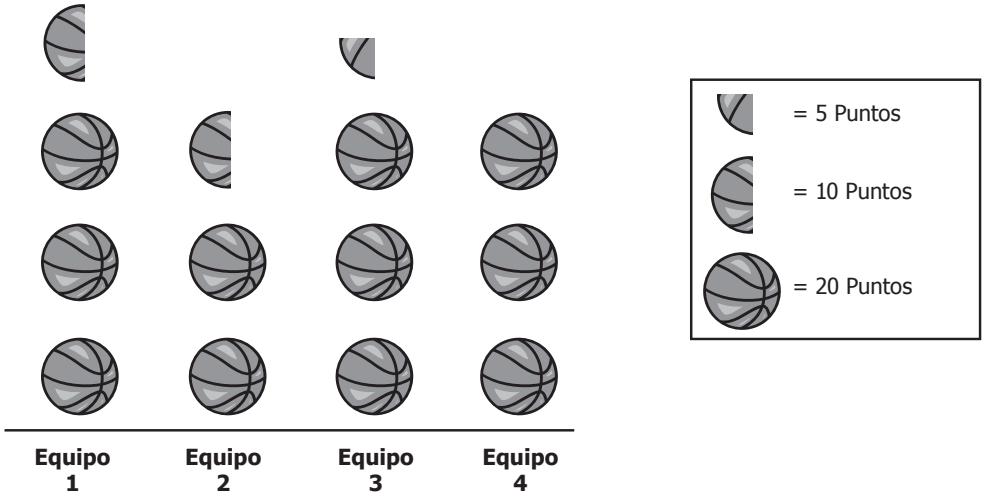
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	17.5%	8.8%	69.8%	3.2%	0.6%	2979
Soacha	13.9%	5.8%	78.1%	1.6%	0.7%	5332
Sogamoso	10.1%	3.8%	84.6%	1.3%	0.2%	1355
Soledad	14.4%	5.9%	76.3%	2.4%	1.0%	4980
Sucre	22.1%	10.1%	61.8%	5.1%	0.9%	7540
Tolima	18.0%	7.6%	70.9%	2.7%	0.7%	9164
Tuluá	13.0%	5.7%	78.7%	2.3%	0.2%	2044
Tumaco	23.9%	11.0%	57.2%	6.3%	1.6%	2343
Tunja	11.2%	4.3%	83.1%	1.2%	0.2%	1637
Turbo	22.7%	9.0%	61.9%	5.6%	0.8%	2128
Uribia	24.6%	12.1%	52.4%	8.3%	2.6%	1279
Valle del Cauca	15.8%	6.5%	74.6%	2.5%	0.6%	7967
Valledupar	15.5%	6.4%	73.7%	3.1%	1.3%	4932
Vaupés	22.3%	10.2%	58.2%	8.9%	0.5%	440
Vichada	18.1%	9.1%	66.6%	4.7%	1.4%	788
Villavicencio	12.8%	5.1%	80.3%	1.4%	0.4%	5050
Yopal	16.9%	6.2%	75.0%	1.6%	0.2%	1891
Yumbo	14.9%	6.0%	77.0%	1.8%	0.2%	1259
Zipaquirá	11.2%	5.2%	82.1%	1.5%	0.1%	1260
Colombia	15.8%	6.6%	74.0%	2.7%	0.9%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

- **Pregunta 22.**

Uno de los jueces de un campeonato de baloncesto presentó esta gráfica para mostrar los puntos obtenidos por cada equipo participante.

Puntos obtenidos por equipo



Gráfica

¿Cuáles son los dos equipos que más puntos acumularon?

A. El 1 y el 2.

B. El 3 y el 4.

C. El 1 y el 3.

D. El 2 y el 4.

• Estructura

Competencia	Comunicación
Componente	Aleatorio
Afirmación	Representar gráficamente un conjunto de datos e interpretar representaciones gráficas.
Nivel de desempeño	Mínimo
Respuesta Correcta	C

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	8.6%	26.0%	50.4%	11.4%	3.7%	736
Antioquia	5.2%	16.3%	70.0%	7.3%	1.1%	24803
Apartadó	6.4%	17.3%	67.8%	7.6%	0.8%	1444
Arauca	4.0%	12.5%	77.6%	5.7%	0.2%	2691
Armenia	4.7%	11.2%	78.2%	5.0%	0.9%	2231
Atlántico	7.0%	19.5%	63.1%	8.9%	1.5%	5606
Barrancabermeja	5.6%	11.7%	75.7%	5.9%	1.1%	2152
Barranquilla	5.2%	12.1%	76.3%	5.6%	0.8%	11002
Bello	4.5%	10.4%	79.4%	5.2%	0.5%	4003
Bogotá, D.C.	3.6%	7.5%	84.9%	3.4%	0.6%	59884
Bolívar	8.3%	24.2%	55.5%	10.8%	1.2%	10595
Boyacá	4.3%	11.8%	78.0%	5.3%	0.6%	7882
Bucaramanga	3.7%	7.9%	84.8%	3.3%	0.3%	4495
Buenaventura	6.2%	17.0%	68.3%	7.6%	0.9%	4078
Buga	4.7%	12.2%	75.8%	6.2%	1.1%	982
Caldas	4.6%	13.3%	75.8%	6.0%	0.3%	5432
Cali	4.7%	10.6%	78.9%	4.8%	0.9%	18250
Caquetá	4.8%	17.7%	67.7%	8.3%	1.6%	2804
Cartagena	6.6%	16.2%	68.3%	7.8%	1.1%	10090
Cartago	5.5%	12.0%	77.3%	4.7%	0.4%	1174
Casanare	5.3%	13.1%	74.4%	6.5%	0.6%	3180
Cauca	5.5%	19.5%	65.8%	7.9%	1.3%	11687
Cesar	6.3%	18.4%	65.5%	8.4%	1.3%	7427
Chocó	7.9%	25.0%	54.3%	10.5%	2.2%	3397

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Chía	3.3%	6.8%	87.0%	2.6%	0.4%	1433
Ciénaga	6.9%	19.9%	63.0%	8.6%	1.6%	1356
Cundinamarca	4.2%	10.3%	80.6%	4.5%	0.5%	15056
Córdoba	6.8%	22.7%	59.6%	9.8%	1.1%	12660
Cúcuta	4.4%	9.6%	80.7%	4.7%	0.6%	6778
Dosquebradas	3.5%	9.2%	83.1%	4.2%	0.1%	1637
Duitama	3.1%	6.9%	86.5%	3.4%	0.1%	1186
Envigado	3.4%	7.4%	87.0%	2.1%	0.2%	1216
Facatativá	3.4%	8.4%	83.9%	3.9%	0.4%	1254
Florencia	4.2%	13.9%	76.0%	5.3%	0.6%	1924
Floridablanca	3.0%	7.5%	86.6%	2.6%	0.3%	2345
Fusagasugá	3.7%	7.3%	83.0%	4.5%	1.6%	1056
Girardot	5.0%	13.6%	75.3%	5.6%	0.6%	907
Girón	4.2%	7.6%	84.1%	3.9%	0.3%	1425
Guainía	5.4%	29.5%	54.0%	9.5%	1.7%	465
Guaviare	5.0%	15.9%	66.6%	10.8%	1.7%	874
Huila	4.8%	13.8%	74.2%	6.4%	0.7%	7409
Ibagué	4.6%	9.8%	80.3%	4.5%	0.7%	4915
Ipiales	4.3%	11.6%	78.9%	4.8%	0.4%	1387
Itagüí	4.2%	11.0%	80.2%	4.3%	0.4%	1659
Jamundí	5.5%	16.7%	70.4%	6.2%	1.2%	1101
La Guajira	8.5%	20.5%	59.0%	10.6%	1.3%	3848
Lorica	8.3%	22.5%	58.5%	9.6%	1.1%	1276
Magangué	7.1%	21.8%	59.8%	10.0%	1.3%	1385
Magdalena	7.7%	22.8%	57.1%	10.5%	1.8%	8758
Maicao	6.6%	22.6%	57.0%	12.0%	1.8%	2125
Malambo	5.5%	15.8%	71.2%	7.0%	0.5%	1016
Manizales	4.0%	9.4%	82.4%	4.1%	0.1%	2708
Medellín	5.2%	13.4%	75.0%	5.6%	0.9%	17827
Meta	4.5%	14.5%	73.9%	6.5%	0.6%	5551
Montería	6.4%	17.5%	67.4%	8.1%	0.6%	4560
Mosquera	3.7%	7.7%	84.2%	4.0%	0.3%	1231
Nariño	5.0%	15.3%	71.4%	6.0%	2.3%	9344
Neiva	3.8%	9.3%	80.6%	5.4%	0.8%	3488
Norte de Santander	4.7%	13.0%	75.1%	6.5%	0.7%	7482
Palmira	4.2%	10.4%	80.6%	4.0%	0.8%	2732
Pasto	3.2%	8.2%	83.6%	4.1%	0.9%	3725
Pereira	3.1%	10.2%	81.7%	4.0%	1.0%	3668
Piedecuesta	2.9%	10.3%	81.3%	4.2%	1.3%	1276

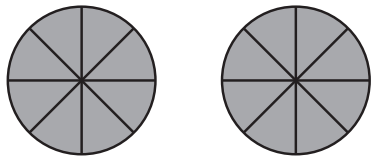
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Pitalito	4.5%	10.8%	78.1%	5.1%	1.6%	1503
Popayán	4.0%	9.5%	80.8%	5.1%	0.6%	2632
Putumayo	5.5%	15.8%	71.6%	6.4%	0.8%	3619
Quibdó	7.8%	14.3%	67.5%	7.8%	2.7%	1121
Quindío	4.3%	11.9%	76.9%	5.7%	1.2%	2082
Riohacha	8.2%	19.4%	62.3%	8.5%	1.6%	2439
Rionegro	5.5%	8.7%	81.6%	4.1%	0.1%	998
Risaralda	5.5%	15.6%	71.5%	6.1%	1.3%	2443
Sabaneta	3.5%	7.5%	82.5%	3.3%	3.1%	481
Sahagún	5.9%	15.3%	71.3%	7.2%	0.3%	1176
San Andrés	7.7%	18.0%	65.8%	7.9%	0.7%	456
Santa Marta	5.4%	15.3%	71.3%	6.9%	1.0%	5713
Santander	4.1%	12.0%	77.7%	5.6%	0.6%	7595
Sincelejo	6.1%	16.0%	69.9%	7.4%	0.7%	2979
Soacha	4.4%	10.4%	79.7%	4.8%	0.6%	5332
Sogamoso	2.9%	5.8%	88.6%	2.6%	0.2%	1355
Soledad	5.6%	12.5%	75.2%	5.5%	1.1%	4980
Sucre	7.8%	23.7%	57.2%	10.3%	1.0%	7540
Tolima	5.6%	16.3%	70.0%	7.3%	0.8%	9164
Tuluá	3.3%	11.7%	79.3%	5.5%	0.2%	2044
Tumaco	9.0%	25.7%	52.7%	10.9%	1.7%	2343
Tunja	2.4%	7.3%	87.2%	3.0%	0.1%	1637
Turbo	9.0%	24.3%	56.5%	9.2%	1.0%	2128
Uribia	7.5%	29.6%	44.4%	15.2%	3.3%	1279
Valle del Cauca	5.4%	13.4%	74.6%	5.9%	0.7%	7967
Valledupar	5.4%	14.9%	71.1%	7.1%	1.5%	4932
Vaupés	8.0%	34.1%	42.5%	14.1%	1.4%	440
Vichada	5.3%	19.9%	63.5%	9.5%	1.8%	788
Villavicencio	3.8%	9.4%	82.2%	4.2%	0.5%	5050
Yopal	5.0%	12.1%	77.0%	5.6%	0.2%	1891
Yumbo	4.9%	13.1%	76.3%	5.3%	0.4%	1259
Zipaquirá	3.7%	9.4%	83.2%	3.4%	0.2%	1260
Colombia	5.1%	13.8%	73.9%	6.2%	0.9%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 23.

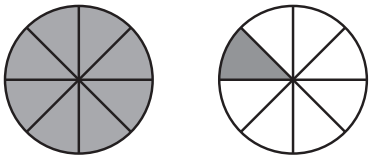
Carlos compró 2 pizzas, cada una dividida en ocho partes iguales, como se muestra en la figura.



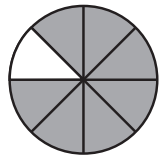
Figura

Si repartió a sus amigos $\frac{9}{8}$ de pizza, ¿cuál de las siguientes figuras representa la pizza que se repartió?

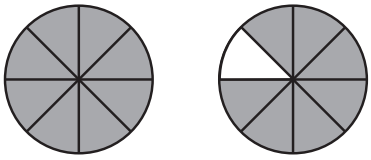
A.



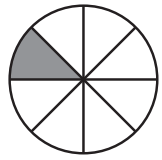
B.



C.



D.



• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Reconocer diferentes representaciones de un mismo número (natural o fracción) y hacer traducciones entre ellas.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	48.8%	9.6%	20.9%	16.3%	4.3%	736
Antioquia	58.7%	9.4%	18.6%	11.8%	1.4%	24803
Apartadó	56.9%	10.9%	20.6%	10.4%	1.2%	1444
Arauca	66.0%	9.4%	14.8%	9.3%	0.6%	2691
Armenia	66.2%	8.7%	16.5%	7.6%	1.1%	2231
Atlántico	56.4%	8.6%	21.5%	11.7%	1.8%	5606
Barrancabermeja	67.3%	8.4%	16.1%	7.1%	1.1%	2152
Barranquilla	65.0%	7.6%	18.0%	8.4%	1.0%	11002
Bello	65.7%	9.1%	16.1%	8.4%	0.6%	4003
Bogotá, D.C.	70.1%	7.1%	14.6%	7.3%	0.9%	59884
Bolívar	48.7%	11.3%	22.8%	15.5%	1.7%	10595
Boyacá	66.2%	7.5%	16.9%	8.6%	0.7%	7882
Bucaramanga	72.4%	6.3%	15.2%	5.5%	0.6%	4495
Buenaventura	57.3%	9.1%	19.6%	12.3%	1.7%	4078
Buga	63.0%	9.2%	18.4%	7.7%	1.6%	982
Caldas	65.4%	7.5%	16.3%	10.4%	0.4%	5432
Cali	66.6%	7.7%	15.9%	8.4%	1.3%	18250
Caquetá	58.8%	7.6%	18.3%	13.7%	1.6%	2804
Cartagena	60.0%	9.0%	18.9%	10.4%	1.7%	10090
Cartago	62.3%	7.7%	18.3%	11.5%	0.3%	1174
Casanare	65.0%	8.6%	15.7%	10.0%	0.8%	3180
Cauca	61.5%	7.2%	17.5%	12.3%	1.5%	11687
Cesar	56.4%	9.3%	18.9%	13.7%	1.6%	7427
Chocó	47.8%	11.2%	23.6%	14.8%	2.6%	3397
Chía	74.0%	7.7%	12.4%	5.4%	0.6%	1433
Ciénaga	54.1%	10.3%	19.8%	13.1%	2.7%	1356
Cundinamarca	68.5%	7.8%	15.7%	7.4%	0.6%	15056
Córdoba	51.4%	10.3%	21.5%	15.4%	1.4%	12660
Cúcuta	68.9%	8.6%	15.3%	6.6%	0.6%	6778
Dosquebradas	69.6%	7.1%	15.0%	7.8%	0.4%	1637
Duitama	73.5%	7.7%	13.0%	5.7%	0.1%	1186
Envigado	71.1%	8.1%	13.2%	7.2%	0.3%	1216
Facatativá	71.9%	4.9%	16.6%	6.1%	0.6%	1254
Florencia	60.5%	9.3%	18.8%	10.2%	1.2%	1924
Floridablanca	73.4%	5.8%	14.4%	5.7%	0.8%	2345
Fusagasugá	70.8%	6.7%	14.3%	6.3%	1.8%	1056
Girardot	66.2%	8.5%	16.5%	7.6%	1.2%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	67.7%	8.0%	15.6%	8.1%	0.6%	1425
Guainía	57.6%	8.6%	17.6%	14.0%	2.2%	465
Guaviare	55.1%	10.2%	19.2%	13.2%	2.3%	874
Huila	67.2%	6.5%	15.5%	9.7%	1.1%	7409
Ibagué	67.1%	8.7%	15.6%	7.5%	1.1%	4915
Ipiales	69.9%	7.1%	15.0%	7.3%	0.6%	1387
Itagüí	62.9%	8.6%	19.0%	9.2%	0.4%	1659
Jamundí	58.5%	9.6%	19.7%	9.9%	2.3%	1101
La Guajira	53.4%	11.0%	21.5%	12.3%	1.7%	3848
Lorica	50.7%	9.9%	23.6%	14.3%	1.6%	1276
Magangué	50.6%	9.7%	23.9%	13.9%	1.9%	1385
Magdalena	53.4%	9.4%	20.9%	14.2%	2.1%	8758
Maicao	51.1%	10.0%	22.2%	14.8%	2.0%	2125
Malambo	63.6%	7.7%	18.0%	9.9%	0.8%	1016
Manizales	69.4%	7.1%	16.0%	7.3%	0.3%	2708
Medellín	60.7%	10.1%	18.5%	9.5%	1.2%	17827
Meta	63.3%	8.5%	17.3%	10.2%	0.6%	5551
Montería	58.1%	9.0%	20.5%	11.3%	1.1%	4560
Mosquera	68.7%	7.9%	15.1%	7.8%	0.5%	1231
Nariño	65.2%	6.7%	15.7%	9.8%	2.7%	9344
Neiva	69.5%	7.6%	14.8%	7.3%	0.8%	3488
Norte de Santander	66.6%	8.1%	16.0%	8.3%	1.0%	7482
Palmira	65.4%	7.7%	17.3%	8.3%	1.4%	2732
Pasto	68.0%	7.0%	16.8%	6.9%	1.3%	3725
Pereira	69.2%	7.0%	15.5%	7.2%	1.1%	3668
Piedecuesta	69.7%	7.1%	15.8%	6.3%	1.1%	1276
Pitalito	69.5%	6.2%	15.8%	6.9%	1.7%	1503
Popayán	67.6%	7.5%	16.5%	7.2%	1.2%	2632
Putumayo	61.9%	8.6%	17.8%	10.3%	1.3%	3619
Quibdó	57.2%	8.9%	19.9%	11.3%	2.7%	1121
Quindío	65.8%	8.6%	15.4%	8.9%	1.3%	2082
Riohacha	54.4%	10.1%	20.5%	13.2%	1.8%	2439
Rionegro	65.9%	7.9%	18.5%	7.4%	0.2%	998
Risaralda	63.3%	7.3%	17.4%	10.4%	1.6%	2443
Sabaneta	66.7%	6.7%	15.2%	7.9%	3.5%	481
Sahagún	59.4%	8.7%	20.3%	10.9%	0.7%	1176
San Andrés	55.3%	10.5%	21.1%	11.8%	1.3%	456
Santa Marta	61.4%	8.6%	18.2%	10.5%	1.4%	5713
Santander	69.2%	6.6%	15.4%	8.1%	0.8%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	60.6%	8.5%	19.3%	10.6%	0.9%	2979
Soacha	67.5%	7.3%	16.6%	7.7%	0.9%	5332
Sogamoso	71.1%	8.1%	13.9%	6.6%	0.4%	1355
Soledad	64.3%	8.3%	17.5%	8.4%	1.5%	4980
Sucre	51.3%	9.2%	23.2%	15.1%	1.2%	7540
Tolima	61.4%	8.4%	18.6%	10.5%	1.1%	9164
Tuluá	66.7%	7.2%	18.3%	7.2%	0.5%	2044
Tumaco	45.5%	12.1%	23.0%	17.2%	2.2%	2343
Tunja	73.5%	6.7%	13.2%	6.0%	0.5%	1637
Turbo	47.9%	11.6%	24.7%	14.7%	1.1%	2128
Uribia	44.6%	15.3%	23.5%	13.5%	3.0%	1279
Valle del Cauca	62.0%	8.0%	19.3%	9.7%	1.0%	7967
Valledupar	62.1%	8.0%	17.6%	10.6%	1.7%	4932
Vaupés	45.0%	13.2%	22.0%	18.6%	1.1%	440
Vichada	54.2%	11.7%	19.3%	13.2%	1.6%	788
Villavicencio	71.9%	7.0%	14.1%	6.0%	0.9%	5050
Yopal	64.8%	8.9%	17.2%	8.4%	0.6%	1891
Yumbo	61.9%	8.7%	19.5%	8.9%	1.0%	1259
Zipaquirá	74.1%	7.0%	13.9%	4.6%	0.4%	1260
Colombia	63.2%	8.3%	17.5%	9.8%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 24.

Sebastián registró el tipo de billete y el total de dinero recolectado de cada tipo de billete por sus compañeros, para comprar el regalo del día del maestro.

Tipo de billete	Total recolectado
	$10.000
	$10.000
	$10.000

Tabla

¿Cuántos billetes de $1.000 se recogieron?

A. 1
B. 10
C. 100
D. 1.000

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver y formular problemas multiplicativos rutinarios y no rutinarios de adición repetida, factor multiplicante, razón y producto cartesiano.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	25.3%	30.8%	8.6%	30.8%	4.5%	736
Antioquia	25.8%	49.0%	7.9%	16.0%	1.3%	24803
Apartadó	28.1%	41.1%	7.7%	21.5%	1.7%	1444
Arauca	23.3%	55.0%	7.0%	14.2%	0.5%	2691
Armenia	19.8%	57.4%	8.0%	13.9%	0.9%	2231
Atlántico	22.2%	46.4%	8.6%	21.0%	1.7%	5606
Barrancabermeja	20.4%	57.3%	7.2%	14.0%	1.0%	2152
Barranquilla	20.6%	58.0%	6.5%	13.9%	1.0%	11002
Bello	21.0%	57.8%	7.3%	13.0%	0.8%	4003
Bogotá, D.C.	15.8%	67.4%	5.7%	10.3%	0.8%	59884
Bolívar	26.2%	36.2%	10.3%	25.8%	1.5%	10595
Boyacá	21.1%	59.1%	6.0%	13.1%	0.6%	7882
Bucaramanga	16.9%	68.0%	5.0%	9.7%	0.4%	4495
Buenaventura	25.7%	45.5%	7.2%	19.9%	1.6%	4078
Buga	19.0%	56.3%	7.2%	16.1%	1.3%	982
Caldas	23.3%	55.5%	6.6%	14.1%	0.5%	5432
Cali	20.3%	59.3%	6.7%	12.5%	1.2%	18250
Caquetá	27.1%	47.3%	7.3%	16.6%	1.7%	2804
Cartagena	21.8%	49.9%	8.2%	18.6%	1.5%	10090
Cartago	19.7%	57.9%	6.8%	14.8%	0.8%	1174
Casanare	24.8%	53.1%	6.4%	15.0%	0.8%	3180
Cauca	23.9%	47.7%	7.3%	19.4%	1.7%	11687
Cesar	24.2%	47.9%	7.9%	18.5%	1.5%	7427
Chocó	24.1%	33.9%	10.1%	29.5%	2.4%	3397
Chía	14.4%	70.4%	5.8%	8.8%	0.6%	1433
Ciénaga	24.4%	44.5%	7.7%	20.9%	2.4%	1356
Cundinamarca	18.8%	63.3%	5.7%	11.6%	0.6%	15056
Córdoba	26.7%	39.6%	9.6%	22.7%	1.4%	12660
Cúcuta	19.9%	60.8%	6.1%	12.6%	0.7%	6778
Dosquebradas	21.5%	61.5%	6.2%	10.4%	0.4%	1637
Duitama	15.3%	70.2%	4.9%	9.4%	0.3%	1186
Envigado	13.2%	71.1%	5.7%	9.6%	0.4%	1216
Facatativá	18.9%	65.2%	5.3%	10.1%	0.5%	1254
Florencia	22.7%	54.3%	6.8%	14.9%	1.2%	1924
Floridablanca	14.9%	69.3%	5.7%	9.5%	0.6%	2345
Fusagasugá	18.9%	63.0%	4.5%	11.8%	1.7%	1056
Girardot	25.1%	52.9%	6.7%	14.3%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	19.2%	62.4%	6.1%	11.6%	0.7%	1425
Guainía	23.2%	32.3%	11.2%	31.8%	1.5%	465
Guaviare	27.5%	44.2%	8.1%	18.6%	1.6%	874
Huila	24.5%	53.8%	6.4%	14.5%	0.9%	7409
Ibagué	17.6%	63.0%	6.2%	12.2%	0.9%	4915
Ipiales	21.1%	59.4%	6.1%	12.7%	0.8%	1387
Itagüí	20.6%	57.4%	8.5%	13.0%	0.5%	1659
Jamundí	24.3%	50.9%	7.2%	15.9%	1.7%	1101
La Guajira	22.1%	41.7%	9.1%	25.3%	1.8%	3848
Lorica	26.7%	37.8%	9.3%	24.9%	1.3%	1276
Magangué	28.3%	35.4%	8.7%	25.8%	1.7%	1385
Magdalena	27.3%	37.9%	9.0%	23.6%	2.2%	8758
Maicao	25.9%	36.7%	9.7%	25.1%	2.6%	2125
Malambo	22.0%	54.0%	6.7%	16.3%	0.9%	1016
Manizales	16.8%	64.5%	6.7%	11.6%	0.5%	2708
Medellín	20.9%	55.0%	8.6%	14.3%	1.2%	17827
Meta	24.5%	51.7%	7.2%	15.7%	0.9%	5551
Montería	23.0%	45.8%	9.6%	20.4%	1.2%	4560
Mosquera	18.3%	64.3%	6.3%	10.6%	0.4%	1231
Nariño	22.1%	52.0%	7.1%	16.3%	2.6%	9344
Neiva	18.9%	62.3%	5.9%	12.2%	0.8%	3488
Norte de Santander	23.3%	56.5%	6.1%	13.1%	0.9%	7482
Palmira	18.1%	61.7%	6.3%	12.7%	1.2%	2732
Pasto	17.7%	62.9%	6.9%	11.3%	1.1%	3725
Pereira	21.7%	59.6%	6.2%	11.2%	1.3%	3668
Piedecuesta	16.8%	66.1%	5.5%	10.5%	1.2%	1276
Pitalito	20.8%	58.6%	6.3%	12.3%	2.0%	1503
Popayán	20.5%	59.9%	6.0%	12.5%	1.1%	2632
Putumayo	24.3%	50.5%	7.6%	16.3%	1.3%	3619
Quibdó	24.7%	42.6%	9.7%	19.7%	3.2%	1121
Quindío	23.2%	54.8%	6.5%	14.2%	1.4%	2082
Riohacha	24.1%	42.1%	8.0%	23.4%	2.4%	2439
Rionegro	20.0%	61.0%	7.1%	11.3%	0.5%	998
Risaralda	23.0%	53.6%	6.6%	15.3%	1.5%	2443
Sabaneta	12.7%	73.4%	4.0%	6.7%	3.3%	481
Sahagún	22.5%	48.3%	9.4%	19.2%	0.5%	1176
San Andrés	24.1%	41.9%	11.8%	21.3%	0.9%	456
Santa Marta	24.2%	51.5%	7.6%	15.6%	1.1%	5713
Santander	22.1%	59.7%	5.4%	11.9%	0.9%	7595

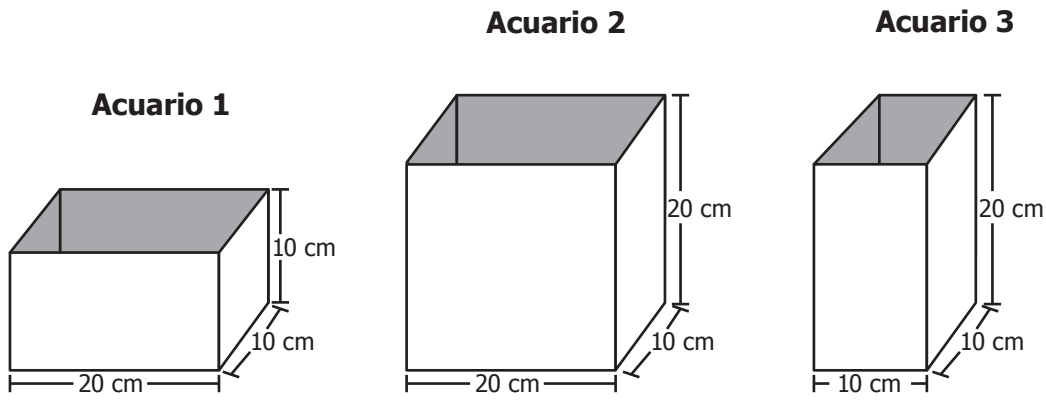
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	23.8%	48.2%	8.2%	18.6%	1.1%	2979
Soacha	20.5%	60.3%	5.7%	12.7%	0.8%	5332
Sogamoso	17.2%	70.5%	4.7%	7.3%	0.3%	1355
Soledad	21.5%	56.6%	6.8%	14.0%	1.1%	4980
Sucre	26.2%	38.2%	9.4%	24.9%	1.3%	7540
Tolima	25.3%	49.0%	7.1%	17.6%	1.0%	9164
Tuluá	21.6%	58.7%	6.5%	12.7%	0.6%	2044
Tumaco	24.0%	33.7%	11.2%	28.7%	2.4%	2343
Tunja	13.9%	71.7%	5.2%	8.9%	0.3%	1637
Turbo	29.6%	33.6%	10.2%	25.0%	1.6%	2128
Uribia	19.6%	29.2%	10.4%	37.5%	3.3%	1279
Valle del Cauca	23.2%	53.7%	7.5%	14.7%	0.9%	7967
Valledupar	22.8%	51.6%	6.9%	16.7%	1.9%	4932
Vaupés	22.0%	33.9%	13.9%	28.6%	1.6%	440
Vichada	18.3%	45.4%	10.0%	24.1%	2.2%	788
Villavicencio	19.0%	62.9%	5.1%	12.2%	0.8%	5050
Yopal	20.3%	57.9%	6.9%	14.5%	0.4%	1891
Yumbo	22.6%	54.3%	7.2%	15.2%	0.6%	1259
Zipaquirá	15.4%	69.3%	4.9%	10.2%	0.2%	1260
Colombia	21.6%	54.6%	7.1%	15.5%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

- **Pregunta 25.**

En una tienda se venden acuarios con forma y tamaño como los que muestra la figura.



Figura

¿Qué tienen en común los tres acuarios?

A. Una cara de 20 cm x 10 cm.

B. Una cara de 20 cm x 20 cm.

C. Una cara de 10 cm x 10 cm.

D. Caras cuadradas iguales.

- **Estructura**

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Comparar y clasificar objetos tridimensionales o figuras bidimensionales de acuerdo con sus componentes y propiedades.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	33.3%	23.2%	20.0%	19.2%	4.3%	736
Antioquia	43.5%	16.9%	21.3%	16.9%	1.4%	24803
Apartadó	41.0%	20.4%	21.7%	15.5%	1.5%	1444
Arauca	45.7%	16.7%	20.3%	16.6%	0.8%	2691
Armenia	46.8%	14.7%	22.6%	14.7%	1.3%	2231
Atlántico	38.8%	19.5%	21.0%	18.8%	1.9%	5606
Barrancabermeja	46.1%	14.0%	23.6%	15.0%	1.3%	2152
Barranquilla	46.2%	16.0%	21.0%	15.8%	1.1%	11002
Bello	47.1%	13.8%	22.9%	15.6%	0.6%	4003
Bogotá, D.C.	51.2%	11.9%	23.3%	12.6%	0.9%	59884
Bolívar	33.7%	23.2%	20.2%	21.1%	1.9%	10595
Boyacá	49.9%	15.1%	20.9%	13.2%	0.9%	7882
Bucaramanga	50.6%	11.9%	21.8%	15.0%	0.7%	4495
Buenaventura	41.2%	17.8%	20.5%	19.0%	1.4%	4078
Buga	47.0%	14.2%	22.3%	15.3%	1.2%	982
Caldas	45.0%	16.8%	21.8%	15.7%	0.6%	5432
Cali	48.7%	14.2%	22.4%	13.3%	1.4%	18250
Caquetá	43.3%	17.9%	20.2%	16.8%	1.9%	2804
Cartagena	45.4%	18.1%	19.2%	15.4%	1.9%	10090
Cartago	44.1%	15.7%	22.7%	16.7%	0.9%	1174
Casanare	46.1%	17.4%	18.5%	16.9%	1.2%	3180
Cauca	43.7%	20.0%	18.9%	15.7%	1.7%	11687
Cesar	39.8%	19.8%	20.4%	18.3%	1.7%	7427
Chocó	32.7%	23.7%	20.8%	20.3%	2.4%	3397
Chía	53.5%	8.9%	23.4%	13.6%	0.6%	1433
Ciénaga	36.0%	21.5%	20.1%	20.6%	1.8%	1356
Cundinamarca	49.6%	13.6%	21.5%	14.6%	0.7%	15056
Córdoba	37.1%	21.1%	21.4%	19.0%	1.4%	12660
Cúcuta	47.9%	14.7%	21.2%	15.6%	0.6%	6778
Dosquebradas	49.8%	11.2%	24.8%	13.8%	0.3%	1637
Duitama	55.1%	12.3%	20.5%	11.6%	0.4%	1186
Envigado	54.2%	8.9%	22.7%	14.1%	0.2%	1216
Facatativá	52.0%	13.2%	19.8%	14.4%	0.6%	1254
Florencia	45.7%	16.1%	22.1%	15.0%	1.1%	1924
Floridablanca	51.8%	13.2%	19.5%	14.7%	0.9%	2345
Fusagasugá	52.6%	14.9%	19.8%	11.0%	1.8%	1056
Girardot	43.2%	17.6%	24.3%	13.9%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	46.7%	14.7%	22.3%	15.9%	0.4%	1425
Guainía	38.5%	21.5%	15.1%	22.6%	2.4%	465
Guaviare	40.8%	19.1%	21.2%	17.4%	1.5%	874
Huila	47.3%	17.3%	19.3%	15.0%	1.2%	7409
Ibagué	46.7%	14.7%	23.3%	14.1%	1.2%	4915
Ipiales	46.4%	15.6%	23.1%	13.9%	1.1%	1387
Itagüí	46.3%	14.7%	23.9%	14.3%	0.8%	1659
Jamundí	44.8%	17.3%	20.1%	16.1%	1.7%	1101
La Guajira	39.1%	21.2%	19.8%	17.9%	2.1%	3848
Lorica	36.1%	20.1%	22.5%	19.6%	1.7%	1276
Magangué	34.6%	21.4%	20.4%	22.2%	1.4%	1385
Magdalena	34.6%	21.7%	19.9%	21.6%	2.3%	8758
Maicao	35.2%	23.1%	20.3%	19.0%	2.4%	2125
Malambo	49.7%	17.7%	17.2%	14.5%	0.9%	1016
Manizales	47.4%	14.6%	22.6%	15.0%	0.4%	2708
Medellín	44.7%	14.9%	24.6%	14.6%	1.3%	17827
Meta	46.1%	16.7%	19.7%	16.7%	0.8%	5551
Montería	40.2%	19.7%	22.2%	16.8%	1.1%	4560
Mosquera	48.3%	13.2%	24.5%	13.2%	0.8%	1231
Nariño	46.1%	16.6%	19.5%	15.3%	2.6%	9344
Neiva	47.4%	16.1%	21.8%	13.7%	0.9%	3488
Norte de Santander	45.3%	16.6%	21.0%	16.2%	0.9%	7482
Palmira	48.5%	13.9%	21.7%	14.6%	1.3%	2732
Pasto	49.3%	13.8%	22.8%	12.9%	1.2%	3725
Pereira	47.9%	12.5%	22.5%	16.0%	1.2%	3668
Piedecuesta	50.9%	12.2%	20.1%	15.3%	1.5%	1276
Pitalito	48.3%	14.3%	21.2%	14.2%	2.1%	1503
Popayán	48.7%	15.4%	21.9%	12.8%	1.2%	2632
Putumayo	43.8%	18.7%	20.6%	15.8%	1.2%	3619
Quibdó	38.0%	19.5%	23.9%	15.4%	3.1%	1121
Quindío	46.8%	16.0%	19.9%	15.9%	1.4%	2082
Riohacha	38.1%	19.0%	20.8%	19.8%	2.3%	2439
Rionegro	47.0%	13.2%	22.4%	16.6%	0.7%	998
Risaralda	43.5%	15.7%	22.8%	16.1%	1.9%	2443
Sabaneta	47.6%	11.4%	22.0%	15.2%	3.7%	481
Sahagún	44.5%	18.5%	20.0%	16.3%	0.7%	1176
San Andrés	39.0%	18.6%	22.8%	18.0%	1.5%	456
Santa Marta	44.2%	17.1%	21.1%	16.3%	1.3%	5713
Santander	48.7%	15.5%	19.5%	15.3%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	42.7%	18.0%	21.8%	16.3%	1.2%	2979
Soacha	48.3%	13.6%	24.6%	12.7%	0.8%	5332
Sogamoso	53.9%	11.1%	21.8%	12.7%	0.4%	1355
Soledad	46.0%	16.4%	20.6%	15.5%	1.6%	4980
Sucre	36.5%	22.6%	19.7%	19.8%	1.4%	7540
Tolima	42.3%	18.8%	21.5%	16.2%	1.2%	9164
Tuluá	47.3%	14.3%	22.5%	15.4%	0.6%	2044
Tumaco	31.7%	23.6%	23.0%	19.4%	2.3%	2343
Tunja	53.8%	11.7%	22.4%	11.8%	0.3%	1637
Turbo	34.1%	22.2%	21.1%	21.1%	1.4%	2128
Uribia	28.6%	26.4%	20.4%	21.2%	3.4%	1279
Valle del Cauca	44.2%	16.5%	21.9%	16.3%	1.1%	7967
Valledupar	44.3%	17.4%	19.9%	16.6%	1.7%	4932
Vaupés	38.4%	23.2%	15.2%	21.8%	1.4%	440
Vichada	39.2%	20.6%	19.3%	18.7%	2.3%	788
Villavicencio	48.6%	14.7%	21.4%	14.3%	1.0%	5050
Yopal	46.9%	14.5%	22.1%	15.7%	0.8%	1891
Yumbo	44.8%	14.8%	25.3%	13.9%	1.2%	1259
Zipaquirá	52.9%	12.5%	21.1%	12.9%	0.6%	1260
Colombia	45.2%	16.3%	21.5%	15.7%	1.3%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 26.

La tabla muestra el precio de la entrada para ver un partido de fútbol dependiendo del torneo.

Clase de partido	Precio de la entrada	
	Niños	Adultos
Liga nacional	$15.000	$20.000
Eliminatorias al mundial	$25.000	$40.000

Tabla

¿Cuál es el costo total de las entradas de un grupo de 5 niños y 3 adultos, que asisten a un partido de la eliminatoria?

A. $275.000

B. $245.000

C. $145.000

D. $135.000

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver y formular problemas multiplicativos rutinarios y no rutinarios de adición repetida, factor multiplicante, razón y producto cartesiano.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	21.5%	35.6%	18.5%	20.0%	4.5%	736
Antioquia	14.5%	52.1%	14.8%	17.2%	1.4%	24803
Apartadó	16.1%	49.8%	16.1%	16.8%	1.2%	1444
Arauca	12.3%	57.9%	13.6%	15.9%	0.4%	2691
Armenia	13.0%	58.0%	14.1%	13.7%	1.3%	2231
Atlántico	17.0%	47.4%	16.6%	17.1%	1.8%	5606
Barrancabermeja	12.6%	58.1%	14.9%	13.0%	1.3%	2152
Barranquilla	13.4%	58.1%	13.9%	13.6%	1.0%	11002
Bello	13.9%	58.4%	14.3%	12.9%	0.5%	4003
Bogotá, D.C.	10.4%	65.3%	12.6%	10.8%	0.9%	59884
Bolívar	19.4%	40.0%	18.6%	20.5%	1.5%	10595
Boyacá	10.2%	59.1%	14.7%	15.5%	0.6%	7882
Bucaramanga	9.3%	67.5%	12.2%	10.3%	0.8%	4495
Buenaventura	16.5%	49.5%	14.9%	17.6%	1.6%	4078
Buga	12.4%	58.4%	14.3%	13.3%	1.6%	982
Caldas	13.2%	57.2%	14.0%	15.0%	0.6%	5432
Cali	13.0%	60.3%	13.6%	11.8%	1.4%	18250
Caquetá	14.7%	52.7%	14.8%	16.2%	1.6%	2804
Cartagena	15.9%	51.4%	15.6%	15.6%	1.4%	10090
Cartago	13.9%	56.3%	15.2%	14.1%	0.5%	1174
Casanare	13.1%	57.3%	13.9%	14.9%	0.9%	3180
Cauca	14.7%	52.1%	14.6%	17.0%	1.5%	11687
Cesar	15.3%	49.1%	16.5%	17.6%	1.5%	7427
Chocó	20.6%	41.7%	15.2%	20.2%	2.3%	3397
Chía	10.3%	67.8%	11.4%	10.0%	0.5%	1433
Ciénaga	16.7%	47.1%	15.3%	18.9%	2.1%	1356
Cundinamarca	10.3%	62.9%	13.1%	13.0%	0.7%	15056
Córdoba	17.8%	42.6%	18.3%	20.0%	1.3%	12660
Cúcuta	11.1%	60.7%	14.5%	12.9%	0.8%	6778
Dosquebradas	10.3%	65.1%	13.7%	10.7%	0.2%	1637
Duitama	8.6%	67.5%	11.6%	11.9%	0.3%	1186
Envigado	11.3%	65.2%	13.0%	10.1%	0.4%	1216
Facatativá	11.3%	64.1%	13.6%	10.5%	0.4%	1254
Florencia	13.0%	55.0%	15.1%	16.0%	0.9%	1924
Floridablanca	10.6%	67.3%	11.3%	10.1%	0.7%	2345
Fusagasugá	11.1%	63.1%	13.3%	10.9%	1.7%	1056
Girardot	15.7%	57.0%	13.3%	13.1%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	11.1%	61.0%	13.9%	13.5%	0.6%	1425
Guainía	18.5%	40.0%	17.6%	22.2%	1.7%	465
Guaviare	14.2%	51.5%	15.4%	17.0%	1.8%	874
Huila	11.4%	55.8%	15.4%	16.3%	1.0%	7409
Ibagué	11.0%	62.3%	13.7%	12.0%	1.0%	4915
Ipiales	10.9%	61.9%	13.6%	12.9%	0.8%	1387
Itagüí	13.4%	58.5%	14.7%	12.8%	0.5%	1659
Jamundí	17.2%	50.0%	15.2%	15.8%	1.9%	1101
La Guajira	18.6%	44.4%	16.1%	18.9%	2.0%	3848
Lorica	16.5%	42.1%	19.0%	20.9%	1.4%	1276
Magangué	17.8%	40.6%	19.9%	20.1%	1.5%	1385
Magdalena	18.7%	43.0%	16.8%	19.6%	1.9%	8758
Maicao	18.2%	42.4%	18.1%	18.9%	2.4%	2125
Malambo	15.1%	53.2%	16.5%	14.0%	1.2%	1016
Manizales	10.0%	63.8%	12.8%	13.1%	0.3%	2708
Medellín	13.7%	55.4%	15.3%	14.4%	1.3%	17827
Meta	12.9%	56.0%	15.1%	15.2%	0.8%	5551
Montería	15.2%	48.2%	16.9%	18.6%	1.1%	4560
Mosquera	11.9%	63.8%	12.3%	11.1%	0.9%	1231
Nariño	12.8%	56.0%	13.7%	15.0%	2.5%	9344
Neiva	10.7%	60.7%	14.0%	13.5%	1.1%	3488
Norte de Santander	11.4%	58.7%	13.8%	15.2%	1.0%	7482
Palmira	12.3%	61.0%	12.9%	12.8%	1.0%	2732
Pasto	10.5%	62.2%	14.3%	11.8%	1.2%	3725
Pereira	11.7%	62.6%	12.6%	11.9%	1.1%	3668
Piedecuesta	10.2%	62.9%	12.9%	12.7%	1.3%	1276
Pitalito	11.4%	58.3%	13.9%	14.6%	1.7%	1503
Popayán	10.0%	62.8%	12.8%	13.3%	1.0%	2632
Putumayo	12.9%	53.2%	14.5%	18.1%	1.4%	3619
Quibdó	17.0%	47.2%	15.3%	17.9%	2.6%	1121
Quindío	12.5%	56.2%	15.3%	14.7%	1.2%	2082
Riohacha	16.4%	47.4%	15.9%	18.4%	1.8%	2439
Rionegro	12.8%	60.5%	14.1%	12.3%	0.2%	998
Risaralda	12.1%	54.8%	15.3%	16.4%	1.4%	2443
Sabaneta	9.1%	68.2%	10.6%	8.9%	3.1%	481
Sahagún	15.4%	49.9%	18.5%	15.7%	0.5%	1176
San Andrés	16.7%	43.0%	17.8%	21.9%	0.7%	456
Santa Marta	14.1%	53.2%	14.7%	16.5%	1.4%	5713
Santander	11.4%	60.1%	13.6%	14.0%	0.8%	7595

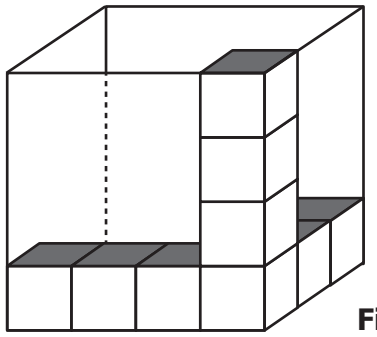
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	15.9%	50.3%	15.8%	17.1%	0.8%	2979
Soacha	11.3%	62.4%	13.5%	11.8%	1.0%	5332
Sogamoso	8.8%	68.8%	11.3%	10.8%	0.4%	1355
Soledad	13.9%	57.6%	13.9%	13.2%	1.5%	4980
Sucre	19.8%	42.3%	17.9%	18.8%	1.2%	7540
Tolima	13.1%	52.9%	15.4%	17.5%	1.1%	9164
Tuluá	12.8%	58.6%	13.9%	14.3%	0.3%	2044
Tumaco	19.9%	37.8%	17.5%	22.3%	2.5%	2343
Tunja	9.5%	67.9%	12.3%	10.0%	0.4%	1637
Turbo	20.3%	39.1%	17.6%	21.6%	1.6%	2128
Uribia	24.6%	34.7%	18.3%	19.1%	3.4%	1279
Valle del Cauca	13.3%	55.2%	15.1%	15.3%	1.0%	7967
Valledupar	14.1%	53.2%	14.8%	16.1%	1.7%	4932
Vaupés	24.5%	34.1%	19.3%	21.1%	0.9%	440
Vichada	21.4%	44.9%	13.8%	17.6%	2.2%	788
Villavicencio	10.0%	64.7%	12.6%	12.0%	0.7%	5050
Yopal	12.2%	59.7%	15.0%	12.5%	0.6%	1891
Yumbo	14.1%	56.6%	13.7%	15.0%	0.6%	1259
Zipaquirá	9.7%	68.2%	11.2%	10.5%	0.5%	1260
Colombia	13.4%	56.0%	14.6%	14.8%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 27.

Observa los cubos contenidos en la caja de la figura.



Figura

¿Cuántos cubos de esos faltan para llenar la caja?

A. 64
B. 39
C. 16
D. 9

• Estructura

Competencia	Resolución
Componente	Espacial - Métrico
Afirmación	Usar representaciones geométricas y establecer relaciones entre ellas para solucionar problemas.
Nivel de desempeño	Avanzado
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	15.6%	30.2%	30.8%	19.7%	3.7%	736
Antioquia	15.0%	34.0%	33.0%	16.8%	1.2%	24803
Apartadó	15.2%	29.7%	32.8%	21.4%	1.0%	1444
Arauca	16.2%	38.7%	30.9%	13.8%	0.3%	2691
Armenia	12.6%	41.1%	32.9%	12.4%	1.0%	2231
Atlántico	16.8%	32.8%	31.2%	17.6%	1.6%	5606
Barrancabermeja	13.8%	39.3%	32.1%	13.8%	1.0%	2152
Barranquilla	13.1%	38.4%	32.9%	14.7%	0.9%	11002
Bello	13.0%	36.4%	36.2%	13.8%	0.5%	4003
Bogotá, D.C.	12.3%	43.5%	33.6%	9.8%	0.9%	59884
Bolívar	17.7%	30.9%	30.4%	19.5%	1.4%	10595
Boyacá	13.7%	40.4%	33.3%	12.1%	0.6%	7882
Bucaramanga	12.2%	42.7%	32.7%	12.0%	0.4%	4495
Buenaventura	12.3%	29.2%	36.5%	20.7%	1.3%	4078
Buga	13.4%	36.0%	32.7%	16.6%	1.2%	982
Caldas	12.2%	35.0%	36.0%	16.2%	0.6%	5432
Cali	12.7%	38.4%	34.8%	12.9%	1.2%	18250
Caquetá	16.5%	31.9%	31.9%	18.2%	1.5%	2804
Cartagena	16.5%	34.0%	31.5%	16.7%	1.2%	10090
Cartago	12.7%	37.8%	34.2%	14.7%	0.6%	1174
Casanare	14.9%	36.1%	35.1%	13.2%	0.7%	3180
Cauca	13.7%	31.9%	33.0%	20.1%	1.3%	11687
Cesar	14.5%	32.0%	32.4%	19.8%	1.3%	7427
Chocó	18.7%	22.5%	30.7%	25.9%	2.2%	3397
Chía	15.1%	46.1%	29.6%	8.4%	0.8%	1433
Ciénaga	15.1%	30.4%	31.0%	21.8%	1.7%	1356
Cundinamarca	14.0%	42.8%	32.0%	10.7%	0.5%	15056
Córdoba	17.4%	29.2%	32.9%	19.5%	1.0%	12660
Cúcuta	12.0%	38.8%	34.1%	14.5%	0.5%	6778
Dosquebradas	10.8%	37.9%	39.6%	11.7%	0.1%	1637
Duitama	14.2%	45.2%	31.2%	9.1%	0.3%	1186
Envigado	13.5%	46.9%	31.3%	8.0%	0.3%	1216
Facatativá	15.6%	40.0%	34.0%	10.0%	0.3%	1254
Florencia	13.4%	37.1%	33.8%	14.9%	0.7%	1924
Floridablanca	13.7%	45.9%	30.5%	9.4%	0.5%	2345
Fusagasugá	13.7%	43.3%	32.2%	9.3%	1.5%	1056
Girardot	15.7%	34.1%	34.5%	15.2%	0.6%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	11.6%	43.1%	33.1%	11.9%	0.4%	1425
Guainía	16.6%	31.6%	29.7%	20.9%	1.3%	465
Guaviare	15.2%	34.3%	30.9%	18.0%	1.6%	874
Huila	12.8%	36.7%	34.0%	15.6%	0.9%	7409
Ibagué	13.3%	40.2%	33.3%	12.3%	0.8%	4915
Ipiales	13.8%	38.1%	36.6%	10.8%	0.7%	1387
Itagüí	13.4%	35.0%	38.8%	12.5%	0.2%	1659
Jamundí	14.6%	32.5%	36.1%	15.4%	1.4%	1101
La Guajira	19.2%	30.6%	30.1%	18.7%	1.4%	3848
Lorica	18.7%	33.6%	28.4%	17.9%	1.4%	1276
Magangué	17.3%	26.4%	34.2%	20.9%	1.2%	1385
Magdalena	16.1%	28.1%	31.5%	22.7%	1.7%	8758
Maicao	18.4%	26.7%	34.6%	18.0%	2.4%	2125
Malambo	16.2%	33.5%	33.0%	16.4%	0.9%	1016
Manizales	13.3%	37.7%	36.7%	12.0%	0.2%	2708
Medellín	15.8%	36.0%	33.9%	13.3%	1.0%	17827
Meta	15.0%	38.5%	31.6%	14.2%	0.6%	5551
Montería	15.3%	34.4%	32.2%	17.2%	0.9%	4560
Mosquera	12.4%	41.3%	33.5%	12.1%	0.6%	1231
Nariño	13.1%	31.9%	34.2%	18.4%	2.4%	9344
Neiva	13.2%	39.9%	34.2%	12.0%	0.7%	3488
Norte de Santander	13.1%	34.8%	35.0%	16.2%	0.9%	7482
Palmira	12.4%	39.6%	34.6%	12.4%	0.9%	2732
Pasto	13.4%	39.4%	33.9%	12.3%	1.0%	3725
Pereira	10.9%	38.8%	35.3%	14.1%	0.9%	3668
Piedecuesta	13.2%	42.1%	32.0%	11.5%	1.3%	1276
Pitalito	12.1%	35.6%	35.0%	15.6%	1.7%	1503
Popayán	13.0%	38.9%	33.0%	14.1%	0.9%	2632
Putumayo	15.3%	33.7%	32.6%	17.4%	1.0%	3619
Quibdó	13.4%	24.5%	33.6%	25.4%	3.0%	1121
Quindío	12.2%	38.6%	34.1%	14.0%	1.2%	2082
Riohacha	15.2%	30.0%	33.5%	19.4%	2.0%	2439
Rionegro	13.9%	41.6%	33.5%	10.9%	0.1%	998
Risaralda	13.6%	33.5%	33.9%	17.7%	1.4%	2443
Sabaneta	12.3%	40.3%	33.5%	10.4%	3.5%	481
Sahagún	19.2%	32.8%	31.8%	15.9%	0.3%	1176
San Andrés	19.7%	31.8%	33.1%	14.5%	0.9%	456
Santa Marta	12.9%	35.0%	33.9%	17.1%	1.1%	5713
Santander	13.0%	38.2%	33.5%	14.5%	0.8%	7595

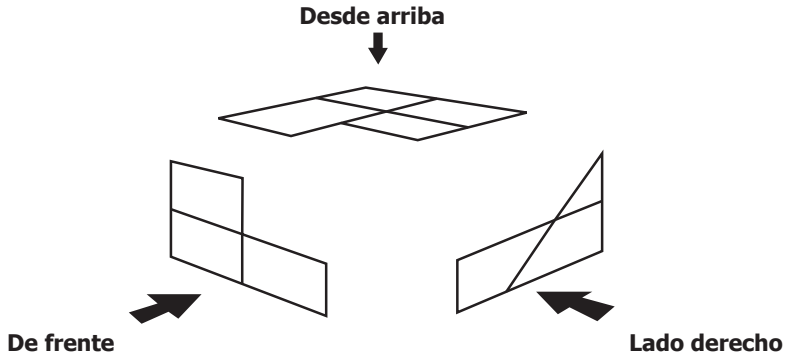
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	14.9%	36.6%	31.6%	16.2%	0.7%	2979
Soacha	12.5%	37.2%	37.7%	11.7%	0.9%	5332
Sogamoso	17.0%	45.3%	29.6%	7.8%	0.3%	1355
Soledad	13.3%	37.7%	33.7%	14.1%	1.3%	4980
Sucre	17.5%	29.2%	31.8%	20.5%	1.0%	7540
Tolima	15.8%	32.9%	34.0%	16.4%	0.9%	9164
Tuluá	12.2%	38.8%	34.1%	14.5%	0.4%	2044
Tumaco	17.1%	26.3%	31.2%	23.5%	1.9%	2343
Tunja	14.5%	50.3%	28.4%	6.7%	0.1%	1637
Turbo	16.6%	25.3%	34.2%	23.0%	0.9%	2128
Uribia	23.2%	20.6%	34.0%	19.2%	3.0%	1279
Valle del Cauca	13.2%	36.0%	33.7%	16.4%	0.8%	7967
Valledupar	11.9%	37.9%	31.3%	17.5%	1.4%	4932
Vaupés	18.2%	24.8%	32.0%	24.1%	0.9%	440
Vichada	18.7%	27.3%	34.4%	17.9%	1.8%	788
Villavicencio	13.3%	45.0%	29.7%	11.2%	0.8%	5050
Yopal	14.4%	39.8%	32.9%	12.4%	0.4%	1891
Yumbo	12.7%	34.7%	36.3%	15.6%	0.6%	1259
Zipaquirá	13.0%	47.0%	30.2%	9.4%	0.3%	1260
Colombia	14.2%	36.6%	33.2%	15.0%	1.0%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 28.

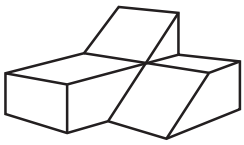
Un sólido se observa desde arriba, de frente y por el lado derecho como se muestra en la figura.



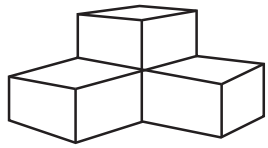
Figura

¿Cuál de los siguientes sólidos se observó?

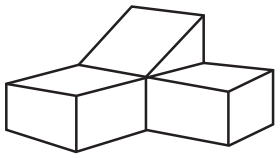
A.



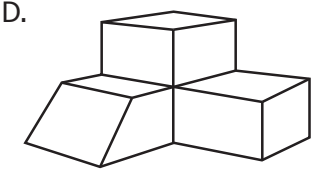
B.



C.



D.



• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Comparar y clasificar objetos tridimensionales o figuras bidimensionales de acuerdo con sus componentes y propiedades.
Nivel de desempeño	Avanzado
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	31.3%	27.7%	23.8%	13.2%	4.1%	736
Antioquia	36.4%	26.5%	21.6%	14.1%	1.4%	24803
Apartadó	33.0%	28.3%	22.6%	15.0%	1.1%	1444
Arauca	38.5%	24.0%	23.8%	13.4%	0.4%	2691
Armenia	42.0%	22.0%	22.0%	12.8%	1.2%	2231
Atlántico	36.4%	25.6%	21.4%	14.6%	1.9%	5606
Barrancabermeja	39.3%	22.8%	23.4%	13.4%	1.2%	2152
Barranquilla	42.3%	23.0%	20.3%	13.5%	1.1%	11002
Bello	41.0%	23.6%	20.6%	14.4%	0.5%	4003
Bogotá, D.C.	48.4%	18.7%	19.1%	12.8%	1.0%	59884
Bolívar	29.6%	29.4%	23.1%	16.2%	1.7%	10595
Boyacá	40.0%	22.3%	22.2%	14.7%	0.8%	7882
Bucaramanga	47.4%	19.1%	19.4%	13.5%	0.6%	4495
Buenaventura	36.8%	27.8%	20.0%	13.8%	1.5%	4078
Buga	41.2%	22.0%	22.0%	13.1%	1.6%	982
Caldas	39.2%	24.7%	21.5%	13.8%	0.8%	5432
Cali	43.6%	22.7%	19.6%	12.7%	1.4%	18250
Caquetá	34.2%	27.4%	22.6%	14.1%	1.7%	2804
Cartagena	38.6%	26.3%	20.5%	12.9%	1.6%	10090
Cartago	41.0%	22.5%	19.3%	16.6%	0.6%	1174
Casanare	38.7%	25.1%	21.2%	13.9%	1.1%	3180
Cauca	36.3%	27.5%	20.8%	13.7%	1.7%	11687
Cesar	34.4%	27.6%	21.9%	14.7%	1.4%	7427
Chocó	30.1%	31.7%	20.9%	14.7%	2.7%	3397
Chía	51.3%	17.9%	18.4%	11.9%	0.5%	1433
Ciénaga	32.6%	29.0%	22.0%	13.9%	2.6%	1356
Cundinamarca	43.3%	21.5%	20.9%	13.6%	0.7%	15056
Córdoba	30.5%	29.6%	22.8%	15.7%	1.4%	12660
Cúcuta	43.8%	21.2%	21.2%	13.3%	0.6%	6778
Dosquebradas	41.6%	23.3%	21.1%	13.7%	0.4%	1637
Duitama	48.3%	17.5%	21.2%	12.6%	0.3%	1186
Envigado	45.6%	19.1%	22.0%	12.9%	0.5%	1216
Facatativá	46.3%	19.4%	20.7%	13.2%	0.5%	1254
Florencia	39.0%	24.1%	21.5%	14.6%	0.9%	1924
Floridablanca	49.3%	17.2%	19.4%	13.2%	0.9%	2345
Fusagasugá	48.0%	19.8%	20.5%	10.2%	1.4%	1056
Girardot	39.3%	25.1%	19.3%	15.1%	1.2%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	42.1%	21.0%	22.5%	13.9%	0.5%	1425
Guainía	30.1%	30.3%	22.4%	16.3%	0.9%	465
Guaviare	35.1%	26.0%	22.7%	14.5%	1.7%	874
Huila	40.5%	24.2%	21.1%	13.1%	1.2%	7409
Ibagué	44.1%	20.8%	20.7%	13.2%	1.2%	4915
Ipiales	41.3%	21.3%	23.6%	13.4%	0.4%	1387
Itagüí	38.5%	24.9%	20.4%	15.9%	0.4%	1659
Jamundí	36.8%	26.3%	20.3%	14.7%	1.8%	1101
La Guajira	34.1%	28.0%	21.5%	14.6%	1.8%	3848
Lorica	29.9%	29.2%	23.9%	15.8%	1.3%	1276
Magangué	30.9%	27.5%	22.9%	17.0%	1.7%	1385
Magdalena	31.9%	28.6%	22.5%	14.9%	2.1%	8758
Maicao	31.0%	29.4%	20.8%	16.0%	2.8%	2125
Malambo	39.0%	22.0%	23.6%	14.2%	1.2%	1016
Manizales	45.3%	20.8%	19.8%	13.8%	0.3%	2708
Medellín	38.4%	24.8%	21.5%	14.0%	1.2%	17827
Meta	39.0%	25.1%	20.9%	14.2%	0.8%	5551
Montería	34.3%	27.0%	22.0%	15.8%	1.0%	4560
Mosquera	45.7%	21.2%	19.3%	12.9%	0.8%	1231
Nariño	39.0%	25.1%	20.4%	12.8%	2.7%	9344
Neiva	43.8%	21.5%	20.8%	13.0%	1.0%	3488
Norte de Santander	40.0%	24.8%	21.6%	12.4%	1.1%	7482
Palmira	43.1%	23.3%	19.9%	12.9%	0.8%	2732
Pasto	46.7%	19.5%	20.3%	12.3%	1.2%	3725
Pereira	46.3%	20.0%	19.5%	13.1%	1.1%	3668
Piedecuesta	44.7%	21.9%	19.8%	12.3%	1.3%	1276
Pitalito	42.5%	23.4%	19.6%	12.6%	1.9%	1503
Popayán	44.3%	22.0%	19.5%	12.8%	1.4%	2632
Putumayo	37.2%	28.1%	20.1%	13.4%	1.3%	3619
Quibdó	36.7%	28.0%	16.6%	14.9%	3.8%	1121
Quindío	40.4%	24.7%	19.5%	14.1%	1.3%	2082
Riohacha	31.7%	29.0%	21.4%	15.4%	2.5%	2439
Rionegro	43.7%	19.9%	21.3%	14.7%	0.3%	998
Risaralda	37.9%	26.0%	20.2%	14.3%	1.6%	2443
Sabaneta	44.5%	21.6%	18.9%	12.1%	2.9%	481
Sahagún	32.6%	29.5%	22.2%	15.4%	0.3%	1176
San Andrés	32.9%	32.0%	21.5%	12.7%	0.9%	456
Santa Marta	41.1%	23.8%	20.6%	13.2%	1.2%	5713
Santander	41.9%	23.0%	20.5%	13.8%	0.9%	7595

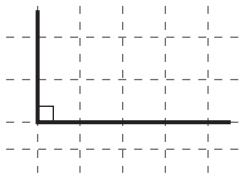
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	36.0%	28.7%	21.2%	13.0%	1.1%	2979
Soacha	45.3%	21.1%	19.2%	13.5%	0.9%	5332
Sogamoso	45.0%	19.0%	21.7%	13.8%	0.4%	1355
Soledad	41.1%	23.6%	20.4%	13.3%	1.6%	4980
Sucre	30.7%	30.9%	22.9%	14.6%	0.9%	7540
Tolima	36.3%	25.9%	21.6%	15.0%	1.1%	9164
Tuluá	43.8%	22.8%	19.4%	13.6%	0.4%	2044
Tumaco	29.6%	31.2%	21.9%	14.9%	2.4%	2343
Tunja	51.0%	17.7%	18.9%	12.2%	0.1%	1637
Turbo	29.3%	30.7%	24.0%	14.7%	1.3%	2128
Uribia	26.1%	33.2%	21.6%	15.9%	3.2%	1279
Valle del Cauca	37.8%	26.2%	21.0%	13.9%	1.2%	7967
Valledupar	41.6%	24.0%	20.6%	12.2%	1.6%	4932
Vaupés	30.2%	36.4%	18.0%	14.1%	1.4%	440
Vichada	32.1%	32.1%	19.4%	14.2%	2.2%	788
Villavicencio	43.7%	22.2%	20.4%	12.8%	0.8%	5050
Yopal	41.1%	23.0%	21.0%	14.0%	0.9%	1891
Yumbo	40.7%	23.9%	20.5%	14.0%	1.0%	1259
Zipaquirá	51.3%	16.7%	20.2%	11.3%	0.5%	1260
Colombia	40.1%	24.1%	20.9%	13.7%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

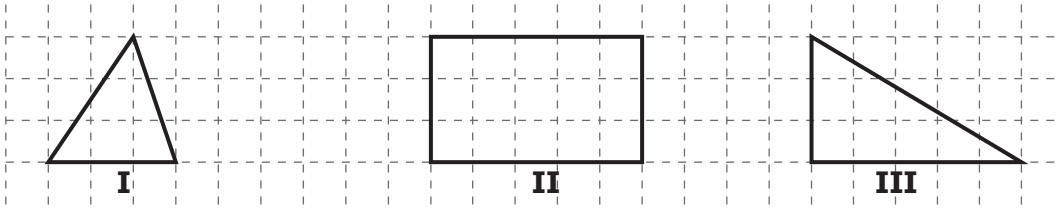
• Pregunta 29.

Dos lados son perpendiculares si forman un ángulo como el de la figura.



Figura

¿Cuál o cuáles de las siguientes figuras tiene(n) lados perpendiculares?



A. I solamente.

B. II y III solamente.

C. II solamente.

D. I y III solamente.

• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Reconocer nociones de paralelismo y perpendicularidad en distintos contextos y usarlas para construir y clasificar figuras planas y sólidos.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	11.7%	43.5%	21.2%	18.9%	4.8%	736
Antioquia	9.1%	52.5%	21.9%	15.1%	1.4%	24803
Apartadó	10.0%	48.1%	25.3%	15.4%	1.2%	1444
Arauca	8.6%	54.5%	22.3%	13.9%	0.7%	2691
Armenia	7.1%	55.2%	23.7%	12.6%	1.4%	2231
Atlántico	9.6%	47.5%	25.7%	15.3%	2.0%	5606
Barrancabermeja	7.5%	56.8%	21.1%	13.2%	1.3%	2152
Barranquilla	7.6%	54.7%	22.2%	14.4%	1.1%	11002
Bello	8.4%	56.9%	20.5%	13.5%	0.7%	4003
Bogotá, D.C.	5.4%	61.4%	20.6%	11.7%	0.8%	59884
Bolívar	11.7%	43.7%	24.2%	18.5%	1.9%	10595
Boyacá	6.9%	55.5%	22.4%	14.4%	0.9%	7882
Bucaramanga	5.8%	62.1%	19.5%	12.0%	0.7%	4495
Buenaventura	9.3%	50.1%	22.5%	16.5%	1.5%	4078
Buga	6.5%	54.9%	22.6%	14.4%	1.6%	982
Caldas	7.8%	55.5%	21.7%	14.3%	0.7%	5432
Cali	7.0%	57.7%	21.9%	12.2%	1.2%	18250
Caquetá	9.4%	48.8%	24.3%	15.6%	2.0%	2804
Cartagena	9.1%	52.0%	22.3%	15.1%	1.6%	10090
Cartago	7.9%	55.8%	21.1%	14.5%	0.7%	1174
Casanare	7.8%	53.2%	21.8%	16.4%	0.7%	3180
Cauca	8.3%	51.7%	22.8%	15.5%	1.7%	11687
Cesar	9.4%	51.1%	21.8%	16.3%	1.4%	7427
Chocó	9.9%	42.5%	26.8%	18.1%	2.6%	3397
Chía	4.7%	64.5%	18.6%	11.7%	0.5%	1433
Ciénaga	9.1%	49.0%	22.3%	16.7%	2.7%	1356
Cundinamarca	6.4%	58.5%	21.2%	13.2%	0.6%	15056
Córdoba	10.9%	44.4%	25.7%	17.7%	1.4%	12660
Cúcuta	7.1%	57.6%	21.2%	13.3%	0.7%	6778
Dosquebradas	5.8%	61.4%	20.5%	12.2%	0.1%	1637
Duitama	4.5%	65.6%	18.2%	11.3%	0.4%	1186
Envigado	5.5%	61.9%	20.7%	11.6%	0.2%	1216
Facatativá	5.3%	60.4%	20.3%	13.6%	0.5%	1254
Florencia	9.4%	53.3%	22.4%	14.0%	0.9%	1924
Floridablanca	5.8%	64.0%	18.6%	10.9%	0.7%	2345
Fusagasugá	4.4%	62.9%	20.3%	10.8%	1.7%	1056
Girardot	6.3%	57.0%	24.1%	11.7%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	7.4%	58.7%	20.3%	13.0%	0.6%	1425
Guainía	9.7%	39.6%	28.4%	20.4%	1.9%	465
Guaviare	8.8%	49.3%	22.8%	17.3%	1.8%	874
Huila	7.4%	54.9%	22.9%	13.8%	1.1%	7409
Ibagué	6.4%	57.4%	22.1%	13.1%	1.0%	4915
Ipiales	7.0%	56.9%	22.3%	13.1%	0.7%	1387
Itagüí	10.2%	54.2%	21.2%	13.7%	0.7%	1659
Jamundí	9.7%	50.1%	24.9%	14.0%	1.3%	1101
La Guajira	10.2%	46.7%	24.2%	17.5%	1.5%	3848
Lorica	10.7%	43.8%	27.2%	16.6%	1.6%	1276
Magangué	10.1%	43.2%	26.3%	18.6%	1.9%	1385
Magdalena	10.2%	43.9%	25.4%	18.3%	2.3%	8758
Maicao	9.5%	45.2%	24.1%	18.9%	2.3%	2125
Malambo	9.1%	53.8%	21.7%	14.8%	0.7%	1016
Manizales	7.0%	57.2%	21.0%	14.5%	0.3%	2708
Medellín	9.1%	54.3%	21.1%	14.2%	1.3%	17827
Meta	8.1%	52.5%	23.1%	15.4%	0.8%	5551
Montería	9.8%	47.4%	24.8%	16.6%	1.3%	4560
Mosquera	5.3%	60.0%	20.4%	13.8%	0.6%	1231
Nariño	7.0%	53.7%	22.4%	14.4%	2.5%	9344
Neiva	6.2%	59.6%	19.9%	13.5%	0.8%	3488
Norte de Santander	7.6%	56.0%	20.8%	14.4%	1.1%	7482
Palmira	6.1%	58.9%	21.1%	12.9%	1.0%	2732
Pasto	6.0%	57.2%	22.8%	12.8%	1.2%	3725
Pereira	6.2%	60.5%	19.2%	12.9%	1.1%	3668
Piedecuesta	5.6%	57.8%	21.2%	14.2%	1.3%	1276
Pitalito	7.2%	52.7%	23.2%	15.2%	1.7%	1503
Popayán	6.1%	59.8%	19.4%	13.9%	0.8%	2632
Putumayo	8.8%	50.9%	24.1%	15.0%	1.2%	3619
Quibdó	8.7%	45.3%	23.5%	19.0%	3.5%	1121
Quindío	8.1%	54.3%	23.0%	13.5%	1.1%	2082
Riohacha	10.7%	47.6%	23.0%	16.6%	2.2%	2439
Rionegro	7.8%	58.0%	19.8%	13.9%	0.4%	998
Risaralda	8.1%	52.3%	22.5%	15.6%	1.5%	2443
Sabaneta	5.8%	58.4%	21.0%	11.6%	3.1%	481
Sahagún	10.2%	47.9%	23.8%	17.5%	0.6%	1176
San Andrés	9.9%	42.1%	26.5%	20.0%	1.5%	456
Santa Marta	9.5%	52.5%	22.8%	13.7%	1.5%	5713
Santander	7.0%	56.7%	21.3%	14.2%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	9.6%	51.1%	24.8%	13.5%	1.0%	2979
Soacha	5.9%	57.5%	22.0%	13.5%	1.0%	5332
Sogamoso	6.9%	59.5%	20.0%	13.3%	0.3%	1355
Soledad	7.7%	57.1%	20.5%	13.2%	1.4%	4980
Sucre	11.3%	42.9%	26.7%	17.7%	1.4%	7540
Tolima	8.5%	50.3%	23.8%	16.2%	1.1%	9164
Tuluá	6.6%	60.2%	18.9%	13.6%	0.6%	2044
Tumaco	11.2%	41.8%	25.7%	18.8%	2.4%	2343
Tunja	5.4%	62.6%	19.8%	11.9%	0.4%	1637
Turbo	11.1%	40.7%	26.7%	20.0%	1.5%	2128
Uribia	10.5%	35.4%	25.4%	25.3%	3.4%	1279
Valle del Cauca	8.8%	53.8%	22.8%	13.6%	1.0%	7967
Valledupar	8.3%	55.9%	20.6%	13.7%	1.5%	4932
Vaupés	13.4%	40.9%	22.5%	22.0%	1.1%	440
Vichada	8.4%	42.1%	25.5%	21.8%	2.2%	788
Villavicencio	6.6%	58.5%	20.5%	13.7%	0.7%	5050
Yopal	8.5%	52.9%	22.5%	15.3%	0.9%	1891
Yumbo	6.7%	56.7%	21.2%	14.1%	1.3%	1259
Zipaquirá	5.9%	64.0%	19.7%	10.2%	0.2%	1260
Colombia	7.9%	54.3%	22.2%	14.4%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 30.

Para ser admitidos en una academia, los aspirantes deben obtener como promedio en tres exámenes 6 o más puntos.

Los resultados obtenidos por cuatro aspirantes se muestran en la tabla.

Aspirante	Examen 1	Examen 2	Examen 3
Mario	5	6	6
Nancy	4	6	8
Octavio	5	5	5
Patricia	9	4	4

Tabla

¿Cuál de los cuatro aspirantes podrá ser admitido en esta academia?

A. Mario.

B. Nancy.

C. Octavio.

D. Patricia.

• Estructura

Competencia	Resolución
Componente	Aleatorio
Afirmación	Resolver problemas que requieren encontrar y/o dar significado a la medida de tendencia central de un conjunto de datos.
Nivel de desempeño	Mínimo
Respuesta Correcta	B

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	15.6%	45.8%	12.6%	21.5%	4.5%	736
Antioquia	16.9%	54.7%	9.9%	17.1%	1.5%	24803
Apartadó	16.5%	49.4%	12.0%	20.1%	1.9%	1444
Arauca	14.8%	60.1%	8.7%	15.9%	0.5%	2691
Armenia	20.8%	53.6%	8.1%	16.4%	1.1%	2231
Atlántico	16.7%	50.9%	11.8%	18.3%	2.3%	5606
Barrancabermeja	17.0%	57.3%	7.6%	17.0%	1.1%	2152
Barranquilla	17.3%	56.3%	7.8%	17.6%	1.0%	11002
Bello	21.1%	54.4%	8.3%	15.3%	0.9%	4003
Bogotá, D.C.	19.6%	58.8%	6.2%	14.4%	1.0%	59884
Bolívar	15.4%	48.2%	13.1%	21.3%	2.0%	10595
Boyacá	16.4%	58.8%	8.2%	15.8%	0.8%	7882
Bucaramanga	19.6%	59.5%	5.7%	14.6%	0.6%	4495
Buenaventura	15.8%	58.0%	8.2%	16.2%	1.8%	4078
Buga	19.5%	57.2%	8.4%	13.3%	1.6%	982
Caldas	16.9%	57.3%	8.8%	16.1%	0.9%	5432
Cali	19.6%	56.6%	7.5%	15.0%	1.4%	18250
Caquetá	15.2%	55.8%	10.4%	16.7%	1.8%	2804
Cartagena	16.5%	54.0%	9.9%	17.9%	1.7%	10090
Cartago	19.0%	53.6%	10.6%	16.0%	0.9%	1174
Casanare	17.3%	58.9%	8.1%	14.8%	0.9%	3180
Cauca	13.9%	58.9%	9.0%	16.5%	1.7%	11687
Cesar	14.5%	55.7%	10.2%	17.8%	1.8%	7427
Chocó	15.0%	52.5%	10.8%	19.0%	2.8%	3397
Chía	20.4%	61.6%	5.6%	11.7%	0.6%	1433
Ciénaga	15.3%	50.7%	11.0%	20.4%	2.7%	1356
Cundinamarca	18.0%	59.3%	7.3%	14.8%	0.7%	15056
Córdoba	15.7%	51.3%	12.7%	18.7%	1.6%	12660
Cúcuta	17.8%	60.0%	7.4%	14.0%	0.8%	6778
Dosquebradas	20.0%	57.2%	6.0%	16.1%	0.7%	1637
Duitama	18.9%	60.1%	7.1%	13.2%	0.7%	1186
Envigado	23.8%	54.9%	7.9%	12.8%	0.5%	1216
Facatativá	18.1%	60.2%	7.3%	13.6%	0.7%	1254
Florencia	17.2%	56.7%	8.8%	16.1%	1.2%	1924
Floridablanca	19.1%	60.7%	6.2%	13.0%	1.0%	2345
Fusagasugá	20.1%	57.0%	7.5%	13.5%	1.9%	1056
Girardot	18.0%	54.9%	7.6%	18.6%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	18.2%	62.0%	5.5%	14.0%	0.3%	1425
Guainía	14.4%	52.7%	13.8%	17.4%	1.7%	465
Guaviare	15.4%	53.0%	10.3%	18.9%	2.4%	874
Huila	15.8%	61.3%	7.6%	14.2%	1.1%	7409
Ibagué	18.6%	56.6%	8.1%	15.8%	0.9%	4915
Ipiales	15.8%	62.3%	8.7%	12.8%	0.5%	1387
Itagüí	23.9%	49.5%	9.8%	16.2%	0.5%	1659
Jamundí	19.0%	49.8%	9.6%	20.0%	1.6%	1101
La Guajira	15.1%	53.0%	10.5%	19.6%	1.8%	3848
Lorica	16.9%	47.5%	12.6%	21.2%	1.8%	1276
Magangué	15.3%	53.9%	10.2%	18.6%	2.0%	1385
Magdalena	15.5%	52.5%	10.4%	19.5%	2.1%	8758
Maicao	17.3%	45.7%	11.6%	22.6%	2.8%	2125
Malambo	14.9%	57.2%	9.9%	17.6%	0.4%	1016
Manizales	18.9%	58.0%	7.4%	15.1%	0.6%	2708
Medellín	20.0%	51.8%	10.4%	16.4%	1.5%	17827
Meta	17.2%	57.1%	9.5%	15.6%	0.6%	5551
Montería	17.5%	50.4%	11.8%	19.1%	1.2%	4560
Mosquera	18.9%	57.6%	8.0%	14.1%	1.4%	1231
Nariño	15.1%	60.9%	7.6%	13.7%	2.7%	9344
Neiva	17.9%	59.7%	7.2%	14.2%	1.1%	3488
Norte de Santander	15.4%	60.3%	8.7%	14.7%	1.0%	7482
Palmira	21.0%	54.9%	7.8%	15.0%	1.2%	2732
Pasto	18.9%	58.8%	7.2%	13.9%	1.2%	3725
Pereira	19.0%	58.1%	6.5%	15.1%	1.3%	3668
Piedecuesta	20.5%	57.1%	5.8%	15.3%	1.3%	1276
Pitalito	15.6%	60.5%	7.7%	14.4%	1.7%	1503
Popayán	18.7%	59.7%	7.6%	13.3%	0.8%	2632
Putumayo	16.8%	56.6%	9.3%	15.7%	1.5%	3619
Quibdó	15.5%	53.8%	8.3%	19.0%	3.4%	1121
Quindío	17.3%	56.1%	8.5%	16.6%	1.4%	2082
Riohacha	16.1%	52.7%	9.8%	19.1%	2.3%	2439
Rionegro	20.6%	55.1%	8.7%	14.8%	0.7%	998
Risaralda	16.3%	55.9%	8.5%	17.7%	1.7%	2443
Sabaneta	22.5%	56.8%	6.2%	11.0%	3.5%	481
Sahagún	13.5%	57.7%	9.7%	18.2%	0.9%	1176
San Andrés	17.1%	43.6%	15.6%	22.1%	1.5%	456
Santa Marta	17.0%	55.3%	7.6%	18.9%	1.3%	5713
Santander	16.0%	60.8%	7.1%	15.1%	1.0%	7595

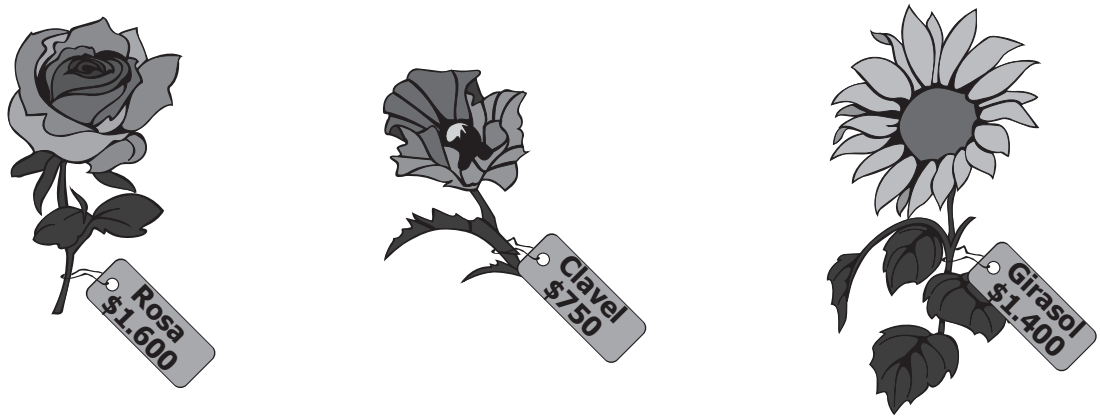
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	17.2%	53.0%	10.6%	17.8%	1.4%	2979
Soacha	19.6%	55.8%	8.0%	15.8%	0.8%	5332
Sogamoso	19.0%	62.6%	6.9%	11.0%	0.6%	1355
Soledad	16.2%	57.7%	7.7%	16.7%	1.6%	4980
Sucre	15.8%	51.6%	11.7%	19.4%	1.5%	7540
Tolima	16.2%	55.7%	9.5%	17.4%	1.1%	9164
Tuluá	19.3%	55.6%	7.3%	17.1%	0.8%	2044
Tumaco	17.3%	45.9%	13.4%	20.7%	2.7%	2343
Tunja	20.2%	61.9%	5.2%	12.5%	0.2%	1637
Turbo	17.8%	46.7%	13.0%	20.8%	1.7%	2128
Uribia	16.3%	42.5%	14.2%	23.8%	3.1%	1279
Valle del Cauca	17.1%	55.7%	9.5%	16.5%	1.2%	7967
Valledupar	16.8%	58.2%	7.8%	15.5%	1.7%	4932
Vaupés	13.9%	47.3%	15.0%	22.0%	1.8%	440
Vichada	14.0%	55.2%	11.8%	16.8%	2.3%	788
Villavicencio	18.5%	59.1%	7.5%	14.2%	0.8%	5050
Yopal	17.7%	56.7%	7.5%	17.1%	1.0%	1891
Yumbo	18.3%	54.4%	9.8%	16.8%	0.6%	1259
Zipaquirá	16.3%	60.9%	6.7%	15.4%	0.7%	1260
Colombia	17.5%	56.2%	8.7%	16.3%	1.3%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 31.

Sandra compró flores para armar un ramo con 2 girasoles, 2 claveles y 1 rosa. Estos son los precios de cada flor:



¿Qué operación debe realizar Sandra para saber cuánto le cuesta el ramo?

A. 1.600 + 1.400 + 750

B. 2 x (1.600 + 1.400 + 750)

C. 2 + 1.600 + 2 + 1.400 + 1 + 750

D. (2 x 1.400) + (2 x 750) + 1600

• Estructura

Competencia	Comunicación
Componente	Numérico - Variacional
Afirmación	Traducir relaciones numéricas expresadas gráfica y simbólicamente.
Nivel de desempeño	Avanzado
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	37.1%	13.3%	22.8%	22.1%	4.6%	736
Antioquia	39.2%	11.1%	15.0%	33.1%	1.5%	24803
Apartadó	40.1%	13.4%	14.4%	30.3%	1.8%	1444
Arauca	36.6%	10.1%	13.6%	38.9%	0.7%	2691
Armenia	37.7%	11.3%	13.3%	36.5%	1.3%	2231
Atlántico	36.3%	12.4%	15.9%	33.0%	2.2%	5606
Barrancabermeja	34.9%	10.1%	14.0%	40.0%	1.1%	2152
Barranquilla	36.6%	11.1%	13.6%	37.5%	1.3%	11002
Bello	37.5%	11.3%	12.9%	37.6%	0.7%	4003
Bogotá, D.C.	32.7%	9.3%	11.0%	46.0%	1.0%	59884
Bolívar	38.5%	14.6%	18.7%	26.2%	2.0%	10595
Boyacá	37.0%	9.1%	12.8%	40.2%	0.9%	7882
Bucaramanga	31.6%	8.9%	10.9%	48.0%	0.6%	4495
Buenaventura	38.4%	10.5%	16.4%	32.8%	1.9%	4078
Buga	36.6%	10.4%	13.7%	38.0%	1.3%	982
Caldas	40.6%	10.3%	11.9%	36.4%	0.8%	5432
Cali	35.1%	10.6%	12.6%	40.4%	1.3%	18250
Caquetá	38.3%	11.0%	15.3%	33.6%	1.8%	2804
Cartagena	35.0%	13.2%	14.9%	35.2%	1.8%	10090
Cartago	35.6%	12.6%	16.4%	34.8%	0.6%	1174
Casanare	37.4%	9.0%	15.2%	37.5%	0.9%	3180
Cauca	39.4%	10.3%	13.7%	34.9%	1.8%	11687
Cesar	38.2%	12.3%	15.0%	33.0%	1.6%	7427
Chocó	36.7%	12.6%	18.9%	29.3%	2.5%	3397
Chía	31.5%	7.4%	10.4%	50.2%	0.5%	1433
Ciénaga	34.5%	13.7%	15.9%	33.8%	2.1%	1356
Cundinamarca	34.7%	9.8%	12.0%	42.9%	0.7%	15056
Córdoba	38.9%	14.1%	17.6%	27.8%	1.6%	12660
Cúcuta	35.7%	9.6%	12.8%	41.1%	0.8%	6778
Dosquebradas	39.3%	8.6%	10.3%	41.1%	0.7%	1637
Duitama	27.7%	9.4%	10.0%	52.4%	0.4%	1186
Envigado	30.6%	8.4%	9.8%	50.6%	0.7%	1216
Facatativá	33.8%	9.0%	12.5%	44.0%	0.6%	1254
Florencia	39.8%	11.4%	13.5%	34.3%	1.0%	1924
Floridablanca	28.6%	10.5%	11.4%	48.7%	0.7%	2345
Fusagasugá	33.0%	8.9%	12.6%	43.8%	1.8%	1056
Girardot	38.1%	11.0%	12.5%	37.5%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	38.2%	10.2%	13.1%	38.0%	0.5%	1425
Guainía	40.6%	12.0%	19.4%	26.7%	1.3%	465
Guaviare	39.2%	12.4%	15.2%	31.2%	1.9%	874
Huila	38.7%	9.4%	13.4%	37.5%	1.1%	7409
Ibagué	33.7%	10.1%	13.1%	41.7%	1.4%	4915
Ipiales	37.3%	9.9%	11.5%	40.7%	0.6%	1387
Itagüí	38.6%	12.9%	13.9%	34.1%	0.5%	1659
Jamundí	40.2%	11.2%	15.9%	30.7%	2.0%	1101
La Guajira	33.4%	13.2%	18.0%	33.4%	2.0%	3848
Lorica	37.1%	15.1%	19.0%	27.3%	1.6%	1276
Magangué	39.0%	14.5%	19.4%	25.0%	2.2%	1385
Magdalena	37.4%	13.3%	16.2%	30.6%	2.5%	8758
Maicao	37.1%	14.7%	18.0%	27.4%	2.8%	2125
Malambo	31.6%	11.8%	14.3%	41.6%	0.7%	1016
Manizales	38.4%	9.0%	11.3%	40.8%	0.5%	2708
Medellín	34.1%	12.6%	15.1%	36.8%	1.5%	17827
Meta	38.5%	10.3%	14.5%	36.0%	0.8%	5551
Montería	39.3%	12.6%	16.2%	30.3%	1.5%	4560
Mosquera	36.0%	9.1%	11.9%	42.1%	0.9%	1231
Nariño	39.4%	9.1%	12.1%	36.7%	2.7%	9344
Neiva	37.2%	9.6%	12.3%	39.9%	1.0%	3488
Norte de Santander	36.5%	10.2%	13.4%	38.9%	1.1%	7482
Palmira	35.3%	10.0%	13.5%	39.9%	1.3%	2732
Pasto	38.1%	8.9%	11.4%	40.2%	1.4%	3725
Pereira	40.4%	7.9%	11.1%	39.6%	1.0%	3668
Piedecuesta	34.9%	8.5%	13.6%	41.6%	1.4%	1276
Pitalito	39.5%	9.8%	11.8%	37.0%	1.8%	1503
Popayán	35.1%	9.2%	11.9%	42.8%	1.0%	2632
Putumayo	40.1%	11.0%	15.0%	32.4%	1.4%	3619
Quibdó	38.8%	10.0%	14.8%	33.4%	3.0%	1121
Quindío	38.8%	10.7%	13.1%	36.0%	1.4%	2082
Riohacha	37.8%	13.2%	16.3%	30.0%	2.7%	2439
Rionegro	37.1%	10.8%	12.0%	39.5%	0.6%	998
Risaralda	39.4%	8.8%	13.8%	36.3%	1.7%	2443
Sabaneta	28.3%	7.7%	8.1%	53.0%	2.9%	481
Sahagún	37.5%	12.1%	16.2%	33.7%	0.5%	1176
San Andrés	37.3%	15.6%	18.6%	26.8%	1.8%	456
Santa Marta	37.3%	11.7%	14.2%	35.5%	1.3%	5713
Santander	36.2%	9.2%	12.8%	40.7%	1.1%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	39.2%	13.2%	14.8%	31.8%	1.1%	2979
Soacha	36.6%	10.3%	13.5%	38.8%	0.9%	5332
Sogamoso	30.1%	11.4%	10.6%	47.5%	0.4%	1355
Soledad	35.2%	11.5%	14.4%	37.6%	1.4%	4980
Sucre	38.9%	13.1%	18.0%	28.5%	1.5%	7540
Tolima	39.5%	11.0%	14.9%	33.5%	1.1%	9164
Tuluá	37.4%	9.8%	13.5%	38.9%	0.4%	2044
Tumaco	34.4%	14.8%	20.0%	27.7%	3.1%	2343
Tunja	29.6%	9.2%	9.8%	50.9%	0.5%	1637
Turbo	39.2%	14.1%	19.7%	25.2%	1.7%	2128
Uribia	37.9%	15.6%	20.6%	22.9%	3.0%	1279
Valle del Cauca	39.6%	10.3%	13.7%	35.1%	1.2%	7967
Valledupar	35.7%	10.7%	13.9%	38.0%	1.7%	4932
Vaupés	38.0%	15.2%	20.9%	24.5%	1.4%	440
Vichada	39.5%	10.8%	16.9%	30.5%	2.4%	788
Villavicencio	35.0%	8.9%	13.6%	41.5%	1.0%	5050
Yopal	37.6%	10.2%	14.5%	37.0%	0.7%	1891
Yumbo	41.1%	9.9%	13.5%	34.7%	0.8%	1259
Zipaquirá	31.0%	9.1%	11.7%	47.4%	0.8%	1260
Colombia	36.5%	10.9%	13.9%	37.5%	1.3%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 32.

En la secuencia falta una figura. Observa:

Figura 1 **Figura 2** **Figura 3** **Figura 4**

¿Cuál será la figura 3?

A.

B.

C.

D.

• Estructura

Competencia	Resolución
Componente	Espacial - Métrico
Afirmación	Usar representaciones geométricas y establecer relaciones entre ellas para solucionar problemas.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	B

- **Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)**

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	17.9%	36.7%	30.2%	11.1%	4.1%	736
Antioquia	16.3%	48.0%	23.9%	10.6%	1.3%	24803
Apartadó	15.9%	42.3%	28.7%	11.8%	1.3%	1444
Arauca	14.5%	56.7%	19.1%	9.0%	0.7%	2691
Armenia	14.8%	57.1%	18.6%	8.5%	1.0%	2231
Atlántico	15.8%	46.0%	24.1%	12.1%	2.0%	5606
Barrancabermeja	14.7%	56.9%	19.1%	8.2%	1.1%	2152
Barranquilla	14.2%	58.3%	17.9%	8.7%	1.0%	11002
Bello	16.2%	56.3%	18.5%	8.4%	0.7%	4003
Bogotá, D.C.	13.0%	66.0%	14.4%	5.7%	0.9%	59884
Bolívar	17.1%	36.6%	29.1%	15.5%	1.6%	10595
Boyacá	14.0%	59.0%	18.6%	7.6%	0.8%	7882
Bucaramanga	11.9%	67.4%	13.9%	6.4%	0.5%	4495
Buenaventura	16.1%	45.2%	25.6%	11.8%	1.3%	4078
Buga	16.9%	56.9%	17.6%	6.7%	1.8%	982
Caldas	14.7%	53.5%	21.9%	9.2%	0.7%	5432
Cali	14.9%	58.9%	17.7%	7.2%	1.3%	18250
Caquetá	15.8%	44.5%	26.8%	11.3%	1.7%	2804
Cartagena	15.8%	49.7%	21.3%	11.7%	1.5%	10090
Cartago	17.5%	58.1%	17.4%	6.5%	0.6%	1174
Casanare	15.6%	54.8%	19.0%	9.6%	1.0%	3180
Cauca	14.5%	45.5%	26.7%	11.7%	1.7%	11687
Cesar	16.1%	44.7%	25.0%	12.8%	1.4%	7427
Chocó	16.5%	32.3%	32.1%	16.2%	3.0%	3397
Chía	12.9%	68.7%	11.9%	5.9%	0.6%	1433
Ciénaga	18.3%	38.6%	26.5%	13.8%	2.7%	1356
Cundinamarca	13.5%	61.9%	16.6%	7.3%	0.7%	15056
Córdoba	17.0%	39.6%	27.7%	14.3%	1.4%	12660
Cúcuta	14.0%	62.9%	15.4%	7.0%	0.8%	6778
Dosquebradas	14.8%	59.6%	18.6%	6.7%	0.3%	1637
Duitama	12.7%	68.2%	13.5%	5.2%	0.3%	1186
Envigado	14.3%	64.4%	13.8%	7.3%	0.2%	1216
Facatativá	13.4%	64.2%	16.3%	5.5%	0.6%	1254
Florencia	16.2%	52.1%	21.8%	9.1%	0.8%	1924
Floridablanca	13.3%	67.8%	12.5%	6.0%	0.4%	2345
Fusagasugá	11.9%	64.9%	16.6%	5.1%	1.5%	1056
Girardot	14.8%	57.6%	19.2%	7.5%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	13.3%	63.7%	15.4%	7.1%	0.4%	1425
Guainía	16.8%	39.6%	27.5%	14.6%	1.5%	465
Guaviare	16.8%	41.8%	27.5%	12.0%	1.9%	874
Huila	13.7%	55.7%	20.2%	9.3%	1.1%	7409
Ibagué	13.8%	61.7%	16.0%	7.5%	0.9%	4915
Ipiales	14.1%	59.1%	18.2%	7.9%	0.7%	1387
Itagüí	17.2%	56.0%	16.9%	9.5%	0.4%	1659
Jamundí	16.5%	51.1%	22.3%	8.4%	1.7%	1101
La Guajira	16.2%	41.4%	26.0%	14.6%	1.8%	3848
Lorica	15.2%	43.9%	25.2%	14.3%	1.4%	1276
Magangué	17.0%	37.4%	29.2%	15.0%	1.4%	1385
Magdalena	16.7%	39.3%	27.7%	14.2%	2.1%	8758
Maicao	17.3%	38.4%	27.6%	14.0%	2.6%	2125
Malambo	14.6%	53.8%	21.2%	9.8%	0.6%	1016
Manizales	14.0%	63.0%	15.7%	7.1%	0.3%	2708
Medellín	16.8%	53.0%	19.7%	9.3%	1.3%	17827
Meta	15.1%	52.0%	22.5%	9.7%	0.6%	5551
Montería	15.5%	47.9%	24.2%	11.2%	1.2%	4560
Mosquera	12.8%	62.9%	17.1%	6.2%	1.0%	1231
Nariño	13.8%	51.2%	22.5%	9.9%	2.7%	9344
Neiva	14.2%	60.9%	16.9%	6.9%	1.1%	3488
Norte de Santander	14.0%	56.6%	19.5%	9.0%	0.9%	7482
Palmira	14.2%	61.0%	15.6%	8.2%	1.0%	2732
Pasto	15.2%	62.8%	14.8%	5.8%	1.3%	3725
Pereira	13.9%	59.6%	18.6%	6.9%	1.0%	3668
Piedecuesta	14.1%	64.7%	14.1%	5.9%	1.3%	1276
Pitalito	14.0%	57.8%	18.8%	7.9%	1.6%	1503
Popayán	15.0%	59.7%	17.5%	7.2%	0.6%	2632
Putumayo	14.7%	49.5%	23.7%	10.7%	1.3%	3619
Quibdó	17.5%	39.9%	24.6%	14.5%	3.5%	1121
Quindío	14.9%	54.9%	19.8%	9.1%	1.2%	2082
Riohacha	15.6%	42.7%	26.2%	13.2%	2.3%	2439
Rionegro	15.3%	60.8%	15.9%	7.8%	0.1%	998
Risaralda	14.8%	50.6%	22.3%	10.5%	1.8%	2443
Sabaneta	12.1%	69.6%	10.2%	5.2%	2.9%	481
Sahagún	15.1%	50.4%	23.1%	11.1%	0.3%	1176
San Andrés	18.9%	46.5%	21.1%	12.3%	1.3%	456
Santa Marta	17.1%	50.6%	21.5%	9.5%	1.2%	5713
Santander	14.0%	59.5%	17.4%	8.3%	0.8%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	16.3%	49.5%	22.7%	10.4%	1.1%	2979
Soacha	15.1%	61.1%	16.2%	6.7%	0.9%	5332
Sogamoso	12.4%	65.5%	15.4%	6.2%	0.6%	1355
Soledad	14.8%	58.2%	17.1%	8.9%	1.1%	4980
Sucre	16.2%	40.4%	28.3%	13.8%	1.2%	7540
Tolima	15.8%	49.9%	22.4%	10.8%	1.1%	9164
Tuluá	15.9%	58.1%	17.8%	7.9%	0.3%	2044
Tumaco	16.5%	33.8%	30.9%	16.4%	2.4%	2343
Tunja	11.1%	69.4%	14.9%	4.4%	0.2%	1637
Turbo	16.6%	37.5%	30.1%	14.4%	1.4%	2128
Uribia	16.8%	27.5%	33.6%	19.2%	2.9%	1279
Valle del Cauca	15.1%	52.9%	21.0%	10.0%	0.9%	7967
Valledupar	13.7%	53.9%	20.8%	10.1%	1.4%	4932
Vaupés	19.8%	29.1%	33.0%	16.8%	1.4%	440
Vichada	15.9%	42.6%	26.5%	11.9%	3.0%	788
Villavicencio	13.8%	61.3%	16.5%	7.7%	0.8%	5050
Yopal	16.4%	58.3%	16.9%	7.7%	0.6%	1891
Yumbo	15.6%	55.7%	21.0%	6.8%	0.9%	1259
Zipaquirá	12.8%	65.2%	16.2%	5.6%	0.3%	1260
Colombia	14.9%	54.2%	20.4%	9.4%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

- **Pregunta 33.**

Observa la secuencia de números:

15, 12, 9, 6, 3...

¿Cuál es el número que sigue en la secuencia después del 3?

A. 0

B. 2

C. 3

D. 4

- **Estructura**

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Justificar propiedades y relaciones numéricas usando ejemplos y contraejemplos.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	37.4%	14.4%	7.5%	36.4%	4.3%	736
Antioquia	60.8%	10.1%	6.3%	21.7%	1.1%	24803
Apartadó	54.4%	12.9%	8.7%	22.8%	1.2%	1444
Arauca	66.5%	8.0%	6.1%	19.1%	0.3%	2691
Armenia	68.1%	9.5%	4.9%	16.7%	0.9%	2231
Atlántico	54.0%	10.2%	9.3%	25.0%	1.6%	5606
Barrancabermeja	66.1%	9.5%	7.3%	16.2%	1.0%	2152
Barranquilla	68.6%	8.0%	6.5%	16.1%	0.7%	11002
Bello	69.5%	9.1%	4.9%	16.1%	0.4%	4003
Bogotá, D.C.	76.4%	6.7%	4.0%	12.1%	0.8%	59884
Bolívar	45.2%	12.2%	11.2%	30.1%	1.3%	10595
Boyacá	67.0%	8.5%	5.9%	17.9%	0.6%	7882
Bucaramanga	76.8%	6.6%	4.6%	11.7%	0.4%	4495
Buenaventura	54.4%	9.5%	9.0%	25.9%	1.2%	4078
Buga	66.1%	11.6%	5.4%	15.5%	1.4%	982
Caldas	65.3%	7.9%	5.5%	20.7%	0.6%	5432
Cali	69.9%	9.0%	4.9%	15.2%	1.0%	18250
Caquetá	52.5%	10.3%	8.0%	27.7%	1.5%	2804
Cartagena	60.6%	9.7%	8.0%	20.3%	1.4%	10090
Cartago	68.1%	10.4%	4.4%	16.8%	0.3%	1174
Casanare	63.1%	10.3%	5.9%	20.1%	0.6%	3180
Cauca	52.1%	9.2%	7.9%	29.6%	1.3%	11687
Cesar	55.1%	10.0%	8.6%	25.0%	1.3%	7427
Chocó	41.2%	11.7%	13.2%	31.4%	2.5%	3397
Chía	81.5%	5.8%	2.9%	9.2%	0.6%	1433
Ciénaga	52.5%	10.0%	9.9%	26.0%	1.5%	1356
Cundinamarca	72.0%	7.5%	4.9%	15.1%	0.5%	15056
Córdoba	49.5%	11.8%	10.0%	27.7%	1.1%	12660
Cúcuta	71.4%	8.2%	5.4%	14.5%	0.5%	6778
Dosquebradas	72.4%	7.3%	4.0%	16.0%	0.3%	1637
Duitama	77.9%	7.1%	4.1%	10.5%	0.3%	1186
Envigado	79.8%	6.9%	3.3%	10.0%	0.1%	1216
Facatativá	74.2%	8.4%	3.3%	13.9%	0.2%	1254
Florencia	61.0%	10.4%	7.5%	20.2%	0.8%	1924
Floridablanca	78.0%	7.2%	4.7%	9.5%	0.6%	2345
Fusagasugá	75.1%	7.3%	3.9%	12.1%	1.6%	1056
Girardot	62.4%	11.0%	7.4%	18.9%	0.3%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	69.5%	9.7%	5.3%	15.2%	0.4%	1425
Guainía	43.7%	12.7%	8.6%	33.3%	1.7%	465
Guaviare	56.2%	11.3%	5.4%	25.6%	1.5%	874
Huila	62.2%	8.8%	6.2%	22.0%	0.8%	7409
Ibagué	70.6%	8.4%	5.6%	14.5%	1.0%	4915
Ipiales	68.7%	9.2%	4.2%	17.5%	0.4%	1387
Itagüí	68.8%	10.6%	5.4%	14.9%	0.3%	1659
Jamundí	62.1%	9.4%	6.5%	20.4%	1.5%	1101
La Guajira	49.9%	10.8%	11.0%	26.9%	1.5%	3848
Lorica	49.7%	11.4%	12.4%	25.2%	1.3%	1276
Magangué	47.9%	13.4%	9.5%	27.7%	1.6%	1385
Magdalena	48.1%	9.9%	11.0%	29.2%	1.8%	8758
Maicao	45.9%	10.9%	10.4%	30.4%	2.5%	2125
Malambo	64.0%	9.4%	6.3%	19.6%	0.7%	1016
Manizales	76.2%	7.4%	3.7%	12.6%	0.2%	2708
Medellín	65.8%	11.4%	5.8%	16.0%	1.0%	17827
Meta	62.1%	10.0%	7.1%	20.4%	0.5%	5551
Montería	56.6%	12.1%	8.8%	21.8%	0.8%	4560
Mosquera	74.2%	7.7%	4.5%	13.3%	0.3%	1231
Nariño	58.9%	8.1%	6.0%	24.6%	2.4%	9344
Neiva	69.2%	8.1%	5.5%	16.5%	0.7%	3488
Norte de Santander	64.5%	8.9%	6.0%	19.9%	0.7%	7482
Palmira	72.1%	8.3%	4.7%	14.0%	0.9%	2732
Pasto	69.9%	8.4%	4.6%	16.2%	0.8%	3725
Pereira	72.1%	7.3%	3.7%	15.9%	1.1%	3668
Piedecuesta	75.4%	8.0%	4.9%	10.7%	1.0%	1276
Pitalito	68.2%	7.8%	4.9%	17.4%	1.7%	1503
Popayán	70.8%	7.5%	4.2%	16.8%	0.6%	2632
Putumayo	57.0%	10.4%	7.2%	24.4%	0.9%	3619
Quibdó	55.6%	8.6%	8.4%	24.6%	2.9%	1121
Quindío	63.2%	8.4%	5.9%	21.3%	1.2%	2082
Riohacha	50.0%	11.3%	9.1%	27.5%	2.0%	2439
Rionegro	72.2%	8.7%	3.8%	15.1%	0.1%	998
Risaralda	61.1%	9.0%	6.8%	21.7%	1.4%	2443
Sabaneta	78.8%	5.8%	2.5%	9.8%	3.1%	481
Sahagún	58.2%	10.9%	8.2%	22.4%	0.2%	1176
San Andrés	55.7%	13.2%	6.4%	23.2%	1.5%	456
Santa Marta	62.1%	9.1%	7.4%	20.3%	1.1%	5713
Santander	67.1%	8.3%	5.4%	18.4%	0.7%	7595

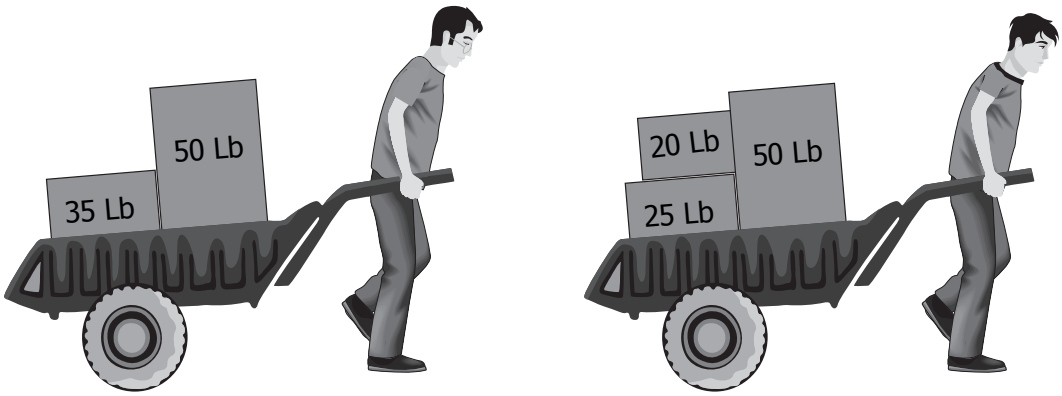
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	59.2%	11.5%	7.2%	21.5%	0.6%	2979
Soacha	71.2%	8.7%	4.1%	15.4%	0.7%	5332
Sogamoso	76.5%	8.8%	4.4%	10.0%	0.4%	1355
Soledad	68.8%	8.6%	6.3%	15.4%	1.0%	4980
Sucre	48.2%	11.6%	9.6%	29.7%	0.9%	7540
Tolima	57.0%	10.0%	7.8%	24.3%	0.9%	9164
Tuluá	69.2%	9.4%	5.1%	15.9%	0.3%	2044
Tumaco	40.3%	11.7%	13.2%	32.5%	2.3%	2343
Tunja	79.3%	6.7%	3.4%	10.6%	0.1%	1637
Turbo	48.3%	11.9%	10.5%	28.1%	1.1%	2128
Uribia	31.7%	10.6%	12.8%	41.8%	3.1%	1279
Valle del Cauca	63.7%	9.2%	6.2%	20.1%	0.8%	7967
Valledupar	63.4%	9.0%	7.1%	19.2%	1.4%	4932
Vaupés	35.7%	14.1%	8.9%	40.7%	0.7%	440
Vichada	47.6%	11.3%	9.3%	29.7%	2.2%	788
Villavicencio	72.6%	8.3%	5.1%	13.2%	0.8%	5050
Yopal	69.0%	9.8%	6.6%	14.2%	0.4%	1891
Yumbo	65.4%	10.2%	5.8%	17.7%	0.8%	1259
Zipaquirá	76.2%	7.4%	2.9%	13.3%	0.2%	1260
Colombia	64.0%	9.1%	6.5%	19.4%	1.0%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 34.

Armando y Roberto usan carretas para llevar cargas de un lugar a otro. El peso de cada carga se muestra en la figura.



Armando **Roberto**

Figura

La carga de Roberto es mayor que la de Armando, porque

A. 20 libras es mayor que 0 libras.

B. 25 libras es mayor que 20 libras.

C. 50 libras es mayor que 35 libras.

D. 45 libras es mayor que 35 libras.

• Estructura

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Justificar y generar equivalencias entre expresiones numéricas.
Nivel de desempeño	Avanzado
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	8.6%	18.6%	50.3%	17.8%	4.8%	736
Antioquia	11.7%	16.0%	42.0%	28.9%	1.4%	24803
Apartadó	12.6%	17.6%	41.8%	26.7%	1.4%	1444
Arauca	10.9%	15.3%	40.8%	32.4%	0.6%	2691
Armenia	11.8%	15.6%	37.9%	33.7%	1.0%	2231
Atlántico	10.5%	16.2%	44.6%	27.1%	1.6%	5606
Barrancabermeja	11.2%	15.3%	38.3%	34.1%	1.2%	2152
Barranquilla	9.9%	14.0%	40.3%	34.7%	1.1%	11002
Bello	13.3%	14.4%	37.7%	33.9%	0.7%	4003
Bogotá, D.C.	10.8%	11.9%	36.7%	39.6%	0.9%	59884
Bolívar	11.3%	18.7%	44.7%	23.4%	1.9%	10595
Boyacá	11.6%	14.2%	41.1%	32.3%	0.7%	7882
Bucaramanga	11.3%	11.6%	35.4%	41.0%	0.6%	4495
Buenaventura	9.5%	13.9%	43.3%	31.6%	1.8%	4078
Buga	10.3%	15.6%	38.3%	34.7%	1.1%	982
Caldas	12.0%	15.2%	41.8%	30.3%	0.6%	5432
Cali	9.9%	13.1%	39.0%	36.8%	1.2%	18250
Caquetá	9.7%	15.7%	43.5%	29.2%	1.9%	2804
Cartagena	10.5%	16.5%	38.8%	32.5%	1.7%	10090
Cartago	10.1%	15.8%	40.6%	32.9%	0.6%	1174
Casanare	10.7%	15.5%	42.8%	30.0%	1.0%	3180
Cauca	9.0%	14.4%	44.4%	30.5%	1.7%	11687
Cesar	11.2%	16.6%	41.5%	29.2%	1.4%	7427
Chocó	10.2%	14.5%	46.2%	26.1%	2.9%	3397

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Chía	10.3%	10.7%	35.9%	42.6%	0.5%	1433
Ciénaga	10.0%	15.3%	44.2%	28.5%	2.0%	1356
Cundinamarca	10.7%	14.0%	38.0%	36.6%	0.7%	15056
Córdoba	10.6%	18.6%	44.0%	25.4%	1.3%	12660
Cúcuta	11.9%	14.6%	37.8%	35.1%	0.6%	6778
Dosquebradas	11.2%	11.9%	40.0%	36.5%	0.4%	1637
Duitama	11.3%	11.9%	34.0%	42.6%	0.3%	1186
Envigado	11.3%	11.4%	29.2%	47.5%	0.5%	1216
Facatativá	8.5%	14.1%	40.7%	36.0%	0.6%	1254
Florencia	12.0%	15.7%	41.7%	29.8%	0.8%	1924
Floridablanca	10.7%	12.0%	32.5%	44.3%	0.6%	2345
Fusagasugá	11.1%	11.9%	36.8%	38.4%	1.7%	1056
Girardot	9.2%	14.0%	43.4%	32.7%	0.7%	907
Girón	11.9%	14.4%	32.8%	40.4%	0.4%	1425
Guainía	8.8%	17.4%	51.6%	20.0%	2.2%	465
Guaviare	9.7%	17.2%	44.1%	27.1%	1.9%	874
Huila	9.8%	14.5%	43.8%	30.8%	1.1%	7409
Ibagué	11.3%	15.2%	38.3%	34.0%	1.1%	4915
Ipiales	10.7%	15.0%	39.0%	34.6%	0.6%	1387
Itagüí	15.7%	17.7%	36.5%	29.7%	0.4%	1659
Jamundí	11.2%	16.5%	45.6%	25.2%	1.5%	1101
La Guajira	9.0%	18.2%	43.2%	28.0%	1.6%	3848
Lorica	11.0%	20.4%	42.5%	24.8%	1.3%	1276
Magangué	12.3%	18.1%	45.1%	22.4%	2.2%	1385
Magdalena	9.9%	16.6%	45.7%	25.8%	2.1%	8758
Maicao	11.4%	18.5%	42.9%	24.3%	2.8%	2125
Malambo	10.1%	16.1%	34.4%	38.8%	0.6%	1016
Manizales	10.3%	13.7%	41.0%	34.7%	0.3%	2708
Medellín	12.9%	17.8%	36.8%	31.2%	1.3%	17827
Meta	11.0%	16.5%	41.0%	30.8%	0.7%	5551
Montería	11.1%	18.6%	41.7%	27.7%	0.9%	4560
Mosquera	9.7%	13.4%	40.5%	35.6%	0.7%	1231
Nariño	10.7%	12.2%	42.1%	32.4%	2.6%	9344
Neiva	10.2%	14.2%	40.9%	33.9%	0.8%	3488
Norte de Santander	11.1%	14.7%	40.3%	32.8%	1.0%	7482
Palmira	10.1%	14.1%	40.6%	33.9%	1.3%	2732
Pasto	10.4%	12.8%	39.3%	36.3%	1.3%	3725
Pereira	11.3%	12.7%	39.8%	34.9%	1.3%	3668
Piedecuesta	10.0%	14.0%	34.0%	40.9%	1.0%	1276

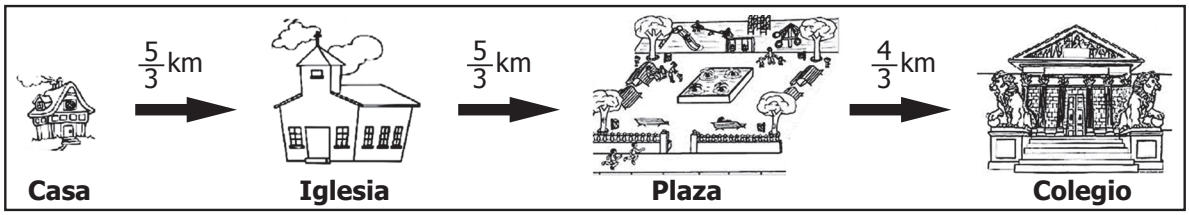
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Pitalito	11.0%	13.9%	42.2%	30.7%	2.1%	1503
Popayán	9.2%	13.3%	37.8%	38.8%	0.9%	2632
Putumayo	10.7%	15.9%	44.0%	28.2%	1.2%	3619
Quibdó	11.2%	15.5%	39.5%	31.0%	2.9%	1121
Quindío	11.6%	16.9%	38.7%	31.1%	1.6%	2082
Riohacha	10.9%	15.6%	42.1%	29.2%	2.1%	2439
Rionegro	11.9%	16.5%	36.3%	35.1%	0.2%	998
Risaralda	12.1%	14.2%	40.6%	31.6%	1.5%	2443
Sabaneta	13.1%	13.1%	28.3%	42.6%	2.9%	481
Sahagún	13.2%	17.8%	43.4%	25.3%	0.3%	1176
San Andrés	10.1%	20.8%	47.6%	20.4%	1.1%	456
Santa Marta	9.9%	14.5%	41.2%	33.2%	1.2%	5713
Santander	10.5%	13.0%	40.4%	35.1%	0.9%	7595
Sincelejo	10.2%	16.4%	42.4%	30.1%	0.9%	2979
Soacha	11.2%	13.9%	40.0%	34.1%	0.8%	5332
Sogamoso	11.6%	14.5%	33.3%	40.1%	0.5%	1355
Soledad	9.6%	13.7%	37.9%	37.4%	1.4%	4980
Sucre	9.8%	18.1%	46.6%	24.3%	1.1%	7540
Tolima	10.9%	16.0%	43.3%	28.8%	1.0%	9164
Tuluá	11.3%	14.6%	40.0%	33.5%	0.6%	2044
Tumaco	9.4%	19.8%	41.9%	26.4%	2.4%	2343
Tunja	10.2%	12.5%	34.2%	42.9%	0.2%	1637
Turbo	11.6%	21.4%	43.4%	22.2%	1.5%	2128
Uribia	9.0%	18.8%	50.2%	19.0%	3.0%	1279
Valle del Cauca	11.4%	15.4%	41.7%	30.6%	0.9%	7967
Valledupar	11.6%	14.3%	38.4%	34.2%	1.5%	4932
Vaupés	10.2%	21.6%	53.9%	13.2%	1.1%	440
Vichada	9.5%	15.2%	48.7%	23.9%	2.7%	788
Villavicencio	11.4%	13.6%	37.6%	36.4%	1.0%	5050
Yopal	12.5%	16.2%	36.1%	34.4%	0.8%	1891
Yumbo	9.6%	14.9%	45.0%	29.8%	0.7%	1259
Zipaquirá	9.0%	13.3%	36.8%	40.4%	0.5%	1260
Colombia	10.8%	14.9%	40.4%	32.7%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 35.

Para ir de la casa al colegio, Ana debe pasar por la iglesia y por la plaza. Las distancias que debe recorrer se muestran en la figura.



Figura

En total, ¿qué distancia debe recorrer Ana para ir de la casa al colegio?

A. $\frac{4}{3}$ km.

B. $\frac{9}{3}$ km.

C. $\frac{10}{3}$ km.

D. $\frac{14}{3}$ km.

• Estructura

Competencia	Resolución
Componente	Numérico - Variacional
Afirmación	Resolver y formular problemas que requieren el uso de la fracción como parte de un todo, como cociente y como razón.
Nivel de desempeño	Mínimo
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	22.4%	12.9%	14.3%	45.8%	4.6%	736
Antioquia	13.5%	12.8%	13.5%	58.6%	1.7%	24803
Apartadó	17.0%	14.5%	14.1%	52.8%	1.7%	1444
Arauca	10.4%	11.1%	11.1%	66.6%	0.8%	2691
Armenia	10.1%	12.6%	12.1%	64.0%	1.3%	2231
Atlántico	17.6%	13.2%	13.2%	53.7%	2.3%	5606
Barrancabermeja	11.6%	11.6%	11.9%	63.6%	1.3%	2152
Barranquilla	12.3%	10.8%	11.6%	63.9%	1.3%	11002
Bello	9.6%	10.5%	13.1%	66.0%	0.8%	4003
Bogotá, D.C.	6.8%	8.9%	9.9%	73.2%	1.1%	59884
Bolívar	21.0%	15.1%	15.7%	45.9%	2.3%	10595
Boyacá	9.7%	10.6%	10.6%	68.1%	1.0%	7882
Bucaramanga	7.5%	9.1%	8.8%	73.8%	0.7%	4495
Buenaventura	18.9%	10.5%	11.5%	57.6%	1.5%	4078
Buga	9.9%	9.4%	13.6%	65.6%	1.5%	982
Caldas	11.7%	10.4%	11.7%	65.2%	1.0%	5432
Cali	9.6%	10.3%	11.4%	67.2%	1.4%	18250
Caquetá	14.6%	10.7%	11.3%	61.5%	1.9%	2804
Cartagena	15.0%	13.0%	13.3%	56.8%	1.8%	10090
Cartago	9.8%	11.0%	14.7%	63.8%	0.8%	1174
Casanare	11.7%	12.0%	11.7%	63.5%	1.1%	3180
Cauca	15.7%	10.1%	10.6%	61.7%	1.8%	11687
Cesar	16.6%	12.0%	13.9%	55.7%	1.8%	7427
Chocó	24.7%	14.9%	12.2%	45.2%	3.0%	3397
Chía	6.4%	9.3%	8.8%	74.8%	0.8%	1433
Ciénaga	19.9%	13.1%	13.7%	51.0%	2.4%	1356
Cundinamarca	7.9%	9.6%	10.2%	71.4%	0.8%	15056
Córdoba	18.8%	15.4%	15.4%	48.7%	1.7%	12660
Cúcuta	8.8%	10.5%	10.4%	69.5%	0.8%	6778
Dosquebradas	7.3%	8.9%	9.6%	73.2%	1.0%	1637
Duitama	6.8%	9.4%	7.2%	76.1%	0.5%	1186
Envigado	4.4%	10.6%	7.9%	76.5%	0.7%	1216
Facatativá	8.1%	8.5%	9.8%	73.2%	0.5%	1254
Florencia	12.8%	11.6%	11.0%	63.1%	1.4%	1924
Floridablanca	6.2%	9.7%	10.6%	72.7%	0.9%	2345
Fusagasugá	7.5%	7.5%	9.9%	73.1%	2.0%	1056
Girardot	11.7%	10.4%	12.7%	64.4%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	8.6%	11.5%	9.7%	69.5%	0.8%	1425
Guainía	18.5%	11.0%	12.9%	56.6%	1.1%	465
Guaviare	12.2%	12.1%	11.8%	62.1%	1.7%	874
Huila	11.9%	9.7%	10.9%	66.3%	1.1%	7409
Ibagué	9.9%	10.0%	11.0%	67.9%	1.1%	4915
Ipiales	9.7%	9.9%	10.7%	69.2%	0.4%	1387
Itagüí	10.2%	13.4%	15.1%	60.9%	0.4%	1659
Jamundí	12.8%	12.4%	15.1%	57.7%	2.0%	1101
La Guajira	19.2%	12.6%	14.2%	52.0%	2.1%	3848
Lorica	19.7%	14.3%	17.6%	47.0%	1.3%	1276
Magangué	21.4%	13.5%	17.0%	45.8%	2.3%	1385
Magdalena	21.3%	13.1%	14.0%	49.1%	2.4%	8758
Maicao	19.0%	14.3%	15.1%	48.9%	2.7%	2125
Malambo	16.5%	13.0%	10.6%	59.0%	0.9%	1016
Manizales	8.6%	9.6%	10.5%	70.7%	0.6%	2708
Medellín	11.0%	13.3%	15.2%	59.0%	1.5%	17827
Meta	11.0%	12.7%	13.0%	62.1%	1.1%	5551
Montería	15.1%	13.4%	15.6%	54.3%	1.6%	4560
Mosquera	6.7%	8.6%	11.6%	71.8%	1.2%	1231
Nariño	13.5%	9.3%	9.4%	65.0%	2.8%	9344
Neiva	9.8%	11.1%	10.5%	67.3%	1.2%	3488
Norte de Santander	10.6%	10.5%	11.3%	66.3%	1.2%	7482
Palmira	9.4%	10.7%	11.7%	67.0%	1.2%	2732
Pasto	8.1%	9.6%	9.6%	71.6%	1.1%	3725
Pereira	9.1%	8.9%	9.8%	70.8%	1.3%	3668
Piedecuesta	8.5%	9.8%	10.2%	69.9%	1.6%	1276
Pitalito	10.6%	10.4%	10.9%	66.1%	1.9%	1503
Popayán	8.8%	9.0%	10.8%	70.5%	1.0%	2632
Putumayo	14.1%	12.1%	11.7%	60.7%	1.4%	3619
Quibdó	20.0%	12.0%	11.2%	53.4%	3.5%	1121
Quindío	12.0%	10.4%	12.8%	63.2%	1.7%	2082
Riohacha	17.0%	15.6%	12.0%	52.8%	2.6%	2439
Rionegro	8.3%	11.7%	10.7%	69.0%	0.2%	998
Risaralda	12.8%	11.1%	11.5%	62.7%	1.9%	2443
Sabaneta	6.7%	8.5%	10.0%	71.9%	2.9%	481
Sahagún	13.6%	13.7%	13.5%	58.3%	0.9%	1176
San Andrés	15.6%	15.8%	18.0%	49.6%	1.1%	456
Santa Marta	14.7%	11.8%	12.2%	59.8%	1.6%	5713
Santander	9.8%	9.0%	9.4%	70.7%	1.1%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	14.3%	13.6%	15.0%	55.9%	1.3%	2979
Soacha	8.3%	10.5%	11.6%	68.6%	1.0%	5332
Sogamoso	7.1%	9.4%	9.7%	73.6%	0.2%	1355
Soledad	11.1%	10.4%	12.3%	64.6%	1.6%	4980
Sucre	20.8%	15.0%	14.4%	48.2%	1.6%	7540
Tolima	13.9%	11.0%	12.1%	61.7%	1.3%	9164
Tuluá	10.1%	9.1%	11.8%	68.3%	0.7%	2044
Tumaco	24.4%	14.3%	15.9%	42.9%	2.6%	2343
Tunja	5.8%	9.0%	8.4%	76.5%	0.3%	1637
Turbo	21.7%	15.0%	16.9%	44.5%	2.0%	2128
Uribia	26.2%	15.2%	15.7%	39.1%	3.8%	1279
Valle del Cauca	12.0%	11.4%	13.0%	62.4%	1.2%	7967
Valledupar	13.6%	11.7%	11.3%	61.5%	1.8%	4932
Vaupés	24.3%	15.0%	18.4%	41.4%	0.9%	440
Vichada	16.4%	11.9%	11.0%	57.5%	3.2%	788
Villavicencio	8.9%	9.8%	9.4%	70.9%	1.0%	5050
Yopal	10.5%	13.4%	12.7%	62.7%	0.7%	1891
Yumbo	11.2%	10.6%	12.6%	64.7%	0.9%	1259
Zipaquirá	7.4%	9.4%	7.7%	74.8%	0.7%	1260
Colombia	12.2%	11.2%	12.0%	63.1%	1.4%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 36.

Un artista dibujó el rostro de su hija sobre una hoja cuadriculada. Observa la figura.

Figura

Si se fotocopia el dibujo al doble de su tamaño original, ¿cuál de las siguientes corresponde a la fotocopia ampliada?

A.

B.

C.

D.

• Estructura

Competencia	Razonamiento
Componente	Espacial - Métrico
Afirmación	Conjeturar y verificar los resultados de aplicar transformaciones a figuras en el plano.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	22.0%	28.7%	32.3%	12.1%	4.9%	736
Antioquia	36.6%	21.5%	31.7%	8.6%	1.6%	24803
Apartadó	33.0%	24.6%	30.5%	10.0%	1.9%	1444
Arauca	40.2%	21.0%	29.5%	8.8%	0.5%	2691
Armenia	46.5%	18.2%	25.5%	8.4%	1.5%	2231
Atlántico	33.3%	25.9%	28.2%	10.3%	2.3%	5606
Barrancabermeja	42.6%	19.1%	28.0%	9.0%	1.2%	2152
Barranquilla	43.1%	20.7%	26.6%	8.4%	1.1%	11002
Bello	47.8%	16.7%	26.4%	8.3%	0.8%	4003
Bogotá, D.C.	51.9%	15.1%	24.8%	7.2%	1.1%	59884
Bolívar	26.3%	27.7%	32.0%	11.8%	2.1%	10595
Boyacá	43.9%	18.4%	29.6%	7.0%	1.0%	7882
Bucaramanga	54.9%	13.2%	24.8%	6.5%	0.6%	4495
Buenaventura	31.7%	21.5%	36.5%	8.9%	1.4%	4078
Buga	46.5%	16.7%	26.8%	8.2%	1.7%	982
Caldas	39.6%	18.7%	33.1%	7.8%	0.8%	5432
Cali	46.9%	16.1%	27.9%	7.8%	1.3%	18250
Caquetá	30.6%	22.5%	35.2%	9.7%	1.9%	2804
Cartagena	36.3%	23.6%	28.3%	10.1%	1.7%	10090
Cartago	47.6%	18.1%	25.8%	8.1%	0.3%	1174
Casanare	39.4%	20.4%	30.5%	8.7%	1.0%	3180
Cauca	32.2%	21.2%	37.0%	7.9%	1.7%	11687
Cesar	32.6%	23.5%	32.9%	9.5%	1.6%	7427
Chocó	27.6%	23.3%	34.6%	11.5%	2.9%	3397
Chía	57.4%	12.1%	24.1%	5.9%	0.4%	1433
Ciénaga	34.6%	23.8%	28.6%	10.7%	2.3%	1356
Cundinamarca	47.1%	16.6%	28.4%	7.1%	0.8%	15056
Córdoba	27.6%	26.0%	33.7%	10.9%	1.9%	12660
Cúcuta	46.6%	18.4%	26.6%	7.6%	0.8%	6778
Dosquebradas	49.2%	16.4%	27.1%	7.0%	0.3%	1637
Duitama	56.5%	12.0%	25.5%	5.6%	0.4%	1186
Envigado	55.1%	10.9%	25.6%	7.8%	0.6%	1216
Facatativá	50.6%	11.6%	30.3%	7.1%	0.4%	1254
Florencia	37.1%	21.8%	31.4%	8.5%	1.3%	1924
Floridablanca	55.5%	12.2%	24.8%	6.7%	0.8%	2345
Fusagasugá	49.1%	14.3%	29.1%	5.4%	2.2%	1056
Girardot	38.0%	24.6%	28.1%	8.4%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	50.2%	15.9%	25.0%	7.9%	1.0%	1425
Guainía	31.0%	24.1%	30.8%	12.3%	1.9%	465
Guaviare	31.5%	21.6%	36.3%	8.2%	2.4%	874
Huila	39.4%	20.4%	32.2%	6.9%	1.1%	7409
Ibagué	49.1%	16.8%	25.9%	7.3%	0.9%	4915
Ipiales	42.9%	16.4%	33.7%	6.4%	0.6%	1387
Itagüí	48.3%	16.3%	26.5%	8.4%	0.5%	1659
Jamundí	40.0%	20.0%	28.4%	9.4%	2.2%	1101
La Guajira	31.5%	23.6%	32.0%	10.8%	2.1%	3848
Lorica	30.1%	25.7%	30.5%	12.1%	1.6%	1276
Magangué	24.4%	30.1%	31.3%	12.1%	2.1%	1385
Magdalena	27.1%	25.9%	33.5%	11.1%	2.4%	8758
Maicao	28.7%	25.2%	31.2%	11.7%	3.1%	2125
Malambo	37.6%	22.1%	29.3%	9.6%	1.3%	1016
Manizales	51.7%	15.8%	25.0%	6.9%	0.6%	2708
Medellín	44.8%	17.4%	26.6%	9.8%	1.4%	17827
Meta	37.3%	22.2%	30.6%	9.2%	0.7%	5551
Montería	34.5%	22.8%	31.3%	10.3%	1.2%	4560
Mosquera	49.4%	17.1%	25.1%	7.3%	1.1%	1231
Nariño	38.1%	19.3%	33.7%	6.2%	2.8%	9344
Neiva	45.2%	17.5%	29.0%	7.3%	1.0%	3488
Norte de Santander	40.4%	19.4%	31.9%	7.1%	1.2%	7482
Palmira	48.8%	15.6%	27.0%	7.6%	1.0%	2732
Pasto	48.5%	13.8%	30.4%	6.0%	1.2%	3725
Pereira	49.6%	16.4%	25.2%	7.4%	1.4%	3668
Piedecuesta	50.2%	15.6%	25.1%	7.3%	1.8%	1276
Pitalito	43.3%	17.8%	30.4%	6.7%	1.7%	1503
Popayán	44.2%	16.9%	31.0%	7.2%	0.7%	2632
Putumayo	35.8%	22.5%	32.3%	8.2%	1.2%	3619
Quibdó	38.0%	21.8%	27.5%	9.2%	3.6%	1121
Quindío	42.6%	20.1%	27.8%	8.0%	1.6%	2082
Riohacha	31.7%	23.5%	31.8%	10.3%	2.8%	2439
Rionegro	49.9%	14.7%	27.3%	7.4%	0.7%	998
Risaralda	38.8%	19.7%	30.7%	9.1%	1.7%	2443
Sabaneta	56.5%	13.3%	23.1%	4.2%	2.9%	481
Sahagún	34.6%	23.4%	31.5%	9.9%	0.6%	1176
San Andrés	34.0%	27.6%	22.4%	14.0%	2.0%	456
Santa Marta	38.9%	21.2%	28.3%	10.1%	1.5%	5713
Santander	43.3%	16.8%	31.8%	7.2%	0.9%	7595

Continúa en la siguiente página

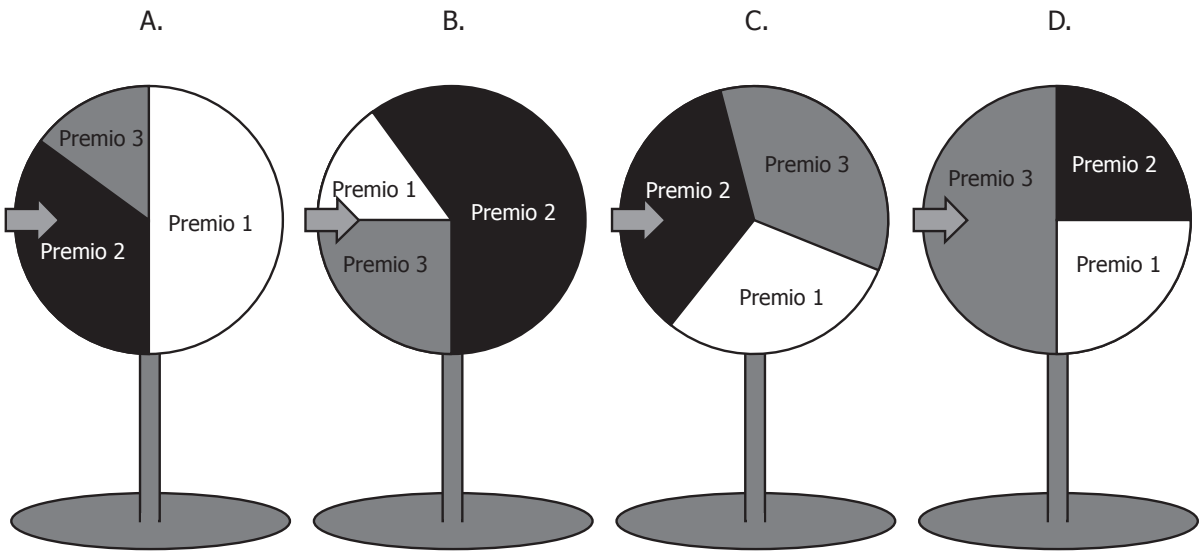
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	36.7%	23.2%	30.0%	9.3%	0.8%	2979
Soacha	46.4%	18.2%	26.4%	8.0%	1.0%	5332
Sogamoso	56.0%	11.4%	25.8%	6.3%	0.4%	1355
Soledad	42.2%	20.2%	27.1%	8.9%	1.5%	4980
Sucre	25.8%	27.6%	33.9%	11.2%	1.6%	7540
Tolima	36.5%	23.8%	30.0%	8.5%	1.3%	9164
Tuluá	46.1%	17.0%	28.1%	8.4%	0.4%	2044
Tumaco	25.6%	25.4%	32.1%	14.3%	2.7%	2343
Tunja	56.4%	11.5%	24.4%	7.2%	0.5%	1637
Turbo	25.8%	27.3%	33.5%	12.0%	1.4%	2128
Uribia	17.7%	23.1%	43.8%	11.7%	3.7%	1279
Valle del Cauca	41.2%	19.9%	29.5%	8.4%	1.0%	7967
Valledupar	38.6%	20.2%	31.4%	8.1%	1.7%	4932
Vaupés	21.4%	24.1%	42.7%	9.3%	2.5%	440
Vichada	28.6%	23.9%	35.8%	8.8%	3.0%	788
Villavicencio	48.8%	16.6%	25.7%	7.9%	1.0%	5050
Yopal	44.1%	17.3%	28.2%	9.5%	0.8%	1891
Yumbo	42.1%	21.0%	27.1%	9.0%	0.8%	1259
Zipaquirá	52.1%	13.7%	28.3%	5.6%	0.3%	1260
Colombia	41.2%	19.6%	29.3%	8.5%	1.4%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 37.

Un juego consiste en girar una ruleta para obtener el premio 1, el premio 2 o el premio 3.

¿En cuál de las siguientes ruletas es más probable que un jugador obtenga el premio 1?



• Estructura

Competencia	Razonamiento
Componente	Aleatorio
Afirmación	Conjeturar y argumentar acerca de la posibilidad de ocurrencia de eventos.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	35.9%	30.6%	15.4%	13.0%	5.2%	736
Antioquia	44.8%	29.6%	14.2%	9.8%	1.6%	24803
Apartadó	40.7%	28.5%	17.6%	11.6%	1.7%	1444
Arauca	53.3%	25.1%	11.8%	9.1%	0.7%	2691
Armenia	52.7%	26.2%	11.7%	8.2%	1.3%	2231
Atlántico	44.7%	26.8%	14.7%	11.4%	2.3%	5606
Barrancabermeja	52.0%	26.3%	12.8%	7.9%	1.1%	2152
Barranquilla	51.2%	26.9%	12.2%	8.3%	1.4%	11002
Bello	49.8%	29.3%	12.4%	7.7%	0.7%	4003
Bogotá, D.C.	53.5%	28.7%	10.4%	6.3%	1.1%	59884
Bolívar	40.2%	27.8%	17.2%	12.8%	2.1%	10595
Boyacá	49.5%	28.1%	12.8%	8.6%	1.0%	7882
Bucaramanga	56.2%	26.6%	10.2%	6.5%	0.6%	4495
Buenaventura	45.3%	30.4%	13.3%	9.0%	1.9%	4078
Buga	50.9%	26.2%	12.9%	8.9%	1.1%	982
Caldas	48.2%	30.9%	11.4%	8.7%	0.8%	5432
Cali	52.7%	27.6%	11.3%	7.1%	1.4%	18250
Caquetá	48.8%	27.4%	13.8%	8.2%	1.8%	2804
Cartagena	49.3%	25.9%	13.5%	9.5%	1.8%	10090
Cartago	50.9%	25.2%	14.6%	8.3%	1.0%	1174
Casanare	47.5%	29.2%	13.4%	8.7%	1.2%	3180
Cauca	47.3%	28.8%	12.1%	10.1%	1.7%	11687
Cesar	49.1%	24.8%	14.0%	10.5%	1.7%	7427
Chocó	38.7%	29.3%	17.2%	11.6%	3.1%	3397
Chía	55.7%	27.8%	9.2%	6.8%	0.5%	1433
Ciénaga	46.6%	27.7%	14.0%	9.3%	2.4%	1356
Cundinamarca	52.0%	28.6%	11.5%	7.2%	0.7%	15056
Córdoba	42.2%	27.9%	16.2%	12.0%	1.8%	12660
Cúcuta	52.2%	27.2%	12.1%	7.5%	1.0%	6778
Dosquebradas	52.2%	31.0%	9.0%	7.3%	0.5%	1637
Duitama	56.9%	27.4%	9.6%	5.4%	0.7%	1186
Envigado	60.9%	23.7%	9.3%	5.8%	0.3%	1216
Facatativá	52.0%	30.1%	11.5%	6.0%	0.5%	1254
Florencia	48.9%	27.8%	12.7%	9.7%	0.9%	1924
Floridablanca	57.9%	25.8%	9.7%	5.9%	0.7%	2345
Fusagasugá	53.1%	28.7%	9.1%	6.8%	2.3%	1056
Girardot	47.1%	29.8%	13.6%	8.7%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	54.0%	24.4%	12.8%	8.0%	0.8%	1425
Guainía	36.6%	31.0%	17.4%	13.1%	1.9%	465
Guaviare	48.1%	27.2%	12.9%	9.6%	2.2%	874
Huila	50.8%	27.8%	11.9%	8.4%	1.0%	7409
Ibagué	52.0%	27.5%	11.9%	7.3%	1.3%	4915
Ipiales	51.3%	28.0%	12.8%	7.2%	0.6%	1387
Itagüí	47.3%	29.3%	13.4%	9.0%	1.0%	1659
Jamundí	45.4%	27.2%	16.3%	9.2%	1.8%	1101
La Guajira	42.6%	28.6%	15.9%	10.8%	2.1%	3848
Lorica	41.5%	27.9%	16.8%	11.8%	2.0%	1276
Magangué	38.1%	28.2%	18.8%	12.3%	2.5%	1385
Magdalena	43.3%	27.7%	14.5%	12.3%	2.2%	8758
Maicao	39.1%	27.4%	17.1%	13.0%	3.4%	2125
Malambo	51.7%	25.2%	13.5%	8.5%	1.2%	1016
Manizales	52.0%	28.0%	11.6%	7.8%	0.6%	2708
Medellín	46.1%	28.7%	14.3%	9.5%	1.5%	17827
Meta	47.4%	29.8%	13.0%	8.9%	0.9%	5551
Montería	43.3%	27.7%	15.7%	11.8%	1.5%	4560
Mosquera	50.9%	29.0%	11.0%	8.0%	1.1%	1231
Nariño	51.0%	27.2%	11.3%	7.6%	2.8%	9344
Neiva	52.0%	27.6%	11.9%	7.4%	1.1%	3488
Norte de Santander	51.4%	27.4%	11.9%	8.1%	1.2%	7482
Palmira	52.2%	28.5%	10.3%	7.9%	1.1%	2732
Pasto	53.7%	27.6%	11.4%	6.2%	1.1%	3725
Pereira	49.4%	30.4%	11.8%	7.0%	1.5%	3668
Piedecuesta	53.8%	25.2%	12.1%	7.1%	1.8%	1276
Pitalito	48.9%	27.1%	12.5%	9.2%	2.3%	1503
Popayán	53.1%	28.1%	10.6%	7.2%	1.0%	2632
Putumayo	47.4%	28.4%	13.6%	9.3%	1.2%	3619
Quibdó	39.1%	31.8%	14.5%	11.2%	3.3%	1121
Quindío	47.2%	29.5%	11.7%	9.7%	1.9%	2082
Riohacha	44.6%	28.2%	14.7%	9.6%	2.8%	2439
Rionegro	49.0%	27.7%	13.7%	9.3%	0.3%	998
Risaralda	47.2%	28.5%	12.4%	10.0%	1.8%	2443
Sabaneta	53.8%	25.6%	10.0%	7.1%	3.5%	481
Sahagún	48.7%	26.6%	14.0%	9.9%	0.8%	1176
San Andrés	36.6%	31.1%	18.6%	11.6%	2.0%	456
Santa Marta	50.3%	27.5%	12.0%	8.6%	1.6%	5713
Santander	52.4%	28.0%	11.5%	7.1%	1.0%	7595

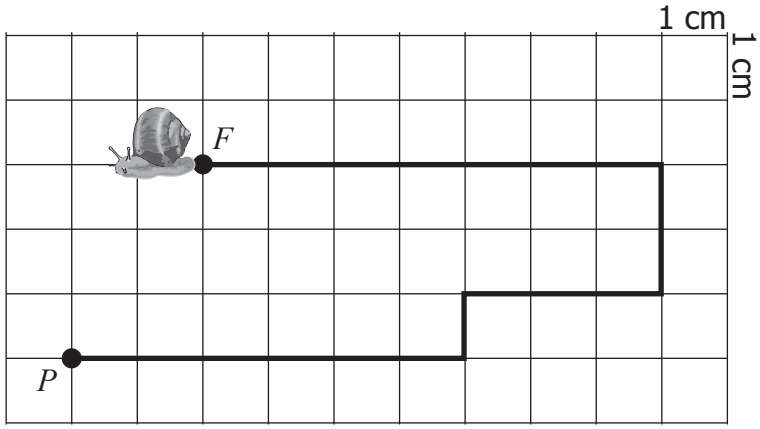
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	47.6%	27.9%	14.1%	9.5%	0.9%	2979
Soacha	49.2%	30.9%	11.2%	7.8%	1.0%	5332
Sogamoso	58.8%	24.9%	9.7%	6.1%	0.4%	1355
Soledad	52.0%	26.9%	12.4%	7.1%	1.5%	4980
Sucre	41.8%	28.0%	16.3%	12.5%	1.4%	7540
Tolima	46.6%	28.6%	13.8%	9.6%	1.3%	9164
Tuluá	50.9%	28.4%	11.3%	8.7%	0.7%	2044
Tumaco	39.3%	29.2%	17.2%	11.4%	2.9%	2343
Tunja	54.7%	27.6%	10.9%	6.4%	0.4%	1637
Turbo	36.7%	29.7%	17.1%	14.8%	1.8%	2128
Uribia	34.9%	29.4%	15.8%	15.6%	4.3%	1279
Valle del Cauca	48.2%	27.8%	14.0%	8.8%	1.2%	7967
Valledupar	52.7%	24.1%	12.3%	9.1%	1.9%	4932
Vaupés	37.7%	31.4%	15.2%	13.6%	2.0%	440
Vichada	40.5%	30.8%	12.9%	12.8%	2.9%	788
Villavicencio	54.2%	27.3%	11.0%	6.5%	1.0%	5050
Yopal	48.8%	28.0%	13.3%	8.8%	1.1%	1891
Yumbo	46.9%	29.7%	12.6%	9.9%	0.8%	1259
Zipaquirá	54.8%	29.9%	8.3%	6.3%	0.6%	1260
Colombia	49.0%	28.1%	12.8%	8.7%	1.4%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 38.

La figura ilustra el camino que recorrió un caracol desde el punto P hasta el punto F.



Figura

La distancia que recorrió el caracol es 19

A. centímetros.

B. metros.

C. kilómetros.

D. milímetros.

• Estructura

Competencia	Comunicación
Componente	Espacial - Métrico
Afirmación	Identificar unidades tanto estandarizadas como no convencionales apropiadas para diferentes mediciones y establecer relaciones entre ellas.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	47.7%	18.8%	15.9%	13.2%	4.5%	736
Antioquia	59.6%	16.4%	13.8%	8.7%	1.4%	24803
Apartadó	50.4%	19.1%	18.1%	10.7%	1.7%	1444
Arauca	65.8%	15.4%	10.7%	7.4%	0.7%	2691
Armenia	58.1%	17.7%	14.7%	8.3%	1.1%	2231
Atlántico	50.5%	18.8%	18.0%	10.6%	2.2%	5606
Barrancabermeja	58.7%	15.1%	16.2%	8.6%	1.3%	2152
Barranquilla	58.1%	16.3%	16.5%	7.9%	1.2%	11002
Bello	60.3%	16.7%	14.9%	7.5%	0.6%	4003
Bogotá, D.C.	64.9%	14.6%	13.0%	6.4%	1.1%	59884
Bolívar	46.7%	19.5%	18.9%	13.1%	1.9%	10595
Boyacá	68.0%	13.9%	10.7%	6.4%	0.9%	7882
Bucaramanga	66.8%	14.7%	12.1%	6.0%	0.4%	4495
Buenaventura	55.8%	17.9%	15.5%	8.8%	1.9%	4078
Buga	58.4%	16.9%	15.0%	8.0%	1.7%	982
Caldas	63.7%	15.5%	12.4%	7.5%	0.9%	5432
Cali	60.9%	15.9%	14.8%	7.2%	1.2%	18250
Caquetá	62.8%	16.2%	11.2%	7.7%	2.1%	2804
Cartagena	55.1%	17.2%	16.3%	9.7%	1.6%	10090
Cartago	57.0%	18.5%	15.3%	8.6%	0.6%	1174
Casanare	61.8%	16.4%	12.5%	8.2%	1.1%	3180
Cauca	62.8%	16.2%	11.8%	7.5%	1.7%	11687
Cesar	57.8%	17.0%	14.2%	9.5%	1.5%	7427
Chocó	48.2%	19.2%	17.7%	12.0%	2.9%	3397
Chía	69.7%	12.9%	10.3%	6.2%	0.8%	1433
Ciénaga	53.2%	18.3%	15.8%	10.3%	2.4%	1356
Cundinamarca	67.2%	14.0%	11.6%	6.5%	0.8%	15056
Córdoba	50.9%	19.0%	16.8%	11.9%	1.3%	12660
Cúcuta	64.0%	14.6%	13.2%	7.5%	0.7%	6778
Dosquebradas	64.4%	15.7%	13.3%	6.3%	0.4%	1637
Duitama	72.1%	12.4%	8.9%	6.2%	0.3%	1186
Envigado	66.9%	13.4%	11.7%	7.6%	0.4%	1216
Facatativá	64.4%	15.2%	13.3%	6.8%	0.2%	1254
Florencia	60.0%	16.9%	13.3%	8.5%	1.2%	1924
Floridablanca	69.7%	14.0%	10.7%	5.1%	0.6%	2345
Fusagasugá	65.2%	14.5%	12.6%	5.8%	1.9%	1056
Girardot	56.4%	17.0%	18.3%	7.3%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	61.8%	16.8%	14.2%	6.7%	0.5%	1425
Guainía	53.5%	18.7%	15.3%	11.2%	1.3%	465
Guaviare	59.4%	16.5%	12.5%	9.7%	1.9%	874
Huila	66.0%	14.3%	11.7%	6.9%	1.1%	7409
Ibagué	60.6%	15.9%	14.9%	7.6%	1.1%	4915
Ipiales	67.5%	13.8%	11.3%	6.8%	0.6%	1387
Itagüí	56.8%	18.6%	14.7%	9.5%	0.4%	1659
Jamundí	52.1%	19.6%	18.3%	8.3%	1.7%	1101
La Guajira	54.8%	17.5%	15.6%	10.3%	1.7%	3848
Lorica	49.0%	17.6%	19.1%	12.8%	1.5%	1276
Magangué	48.8%	19.7%	18.6%	10.8%	2.1%	1385
Magdalena	52.8%	17.4%	16.6%	11.2%	2.0%	8758
Maicao	48.5%	20.1%	17.0%	11.8%	2.7%	2125
Malambo	60.0%	15.3%	15.8%	7.9%	1.0%	1016
Manizales	61.6%	16.0%	14.2%	7.6%	0.7%	2708
Medellín	55.4%	17.8%	15.3%	10.0%	1.5%	17827
Meta	61.3%	16.5%	13.1%	8.4%	0.8%	5551
Montería	49.8%	19.9%	17.9%	11.1%	1.3%	4560
Mosquera	64.9%	15.2%	12.3%	6.8%	0.8%	1231
Nariño	68.7%	12.8%	9.5%	6.3%	2.7%	9344
Neiva	62.9%	15.4%	14.7%	5.9%	1.2%	3488
Norte de Santander	66.4%	13.9%	11.5%	7.1%	1.1%	7482
Palmira	61.4%	15.6%	15.7%	6.2%	1.0%	2732
Pasto	67.8%	13.2%	11.9%	6.0%	1.0%	3725
Pereira	63.5%	16.4%	12.4%	6.2%	1.5%	3668
Piedecuesta	66.0%	15.5%	11.2%	6.0%	1.3%	1276
Pitalito	65.1%	14.8%	11.0%	7.1%	2.1%	1503
Popayán	67.6%	13.5%	11.4%	6.8%	0.7%	2632
Putumayo	61.4%	15.6%	11.9%	9.7%	1.5%	3619
Quibdó	48.7%	17.8%	20.1%	9.7%	3.7%	1121
Quindío	63.5%	14.6%	12.6%	7.7%	1.6%	2082
Riohacha	54.2%	16.0%	16.6%	10.4%	2.7%	2439
Rionegro	61.7%	18.5%	12.3%	6.9%	0.5%	998
Risaralda	60.9%	16.2%	12.6%	8.6%	1.8%	2443
Sabaneta	64.0%	15.2%	11.6%	5.8%	3.3%	481
Sahagún	57.6%	16.1%	17.5%	8.2%	0.6%	1176
San Andrés	47.4%	19.1%	18.0%	14.5%	1.1%	456
Santa Marta	55.7%	17.3%	16.8%	8.8%	1.4%	5713
Santander	68.5%	14.5%	9.8%	6.3%	0.8%	7595

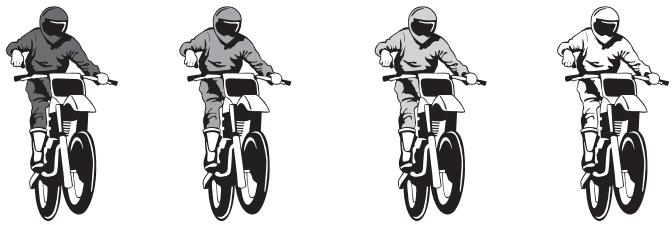
Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	52.7%	17.7%	17.8%	10.9%	0.9%	2979
Soacha	61.9%	16.2%	14.2%	6.7%	1.0%	5332
Sogamoso	68.6%	13.5%	11.6%	5.8%	0.4%	1355
Soledad	59.1%	15.3%	15.8%	8.3%	1.5%	4980
Sucre	48.6%	20.1%	18.0%	12.2%	1.2%	7540
Tolima	59.8%	17.4%	13.7%	7.9%	1.1%	9164
Tuluá	60.0%	16.5%	15.2%	7.7%	0.5%	2044
Tumaco	45.5%	19.5%	18.0%	14.6%	2.4%	2343
Tunja	68.6%	13.9%	12.3%	4.9%	0.2%	1637
Turbo	47.1%	22.0%	17.5%	11.6%	1.8%	2128
Uribia	47.1%	19.5%	17.9%	11.4%	4.1%	1279
Valle del Cauca	60.1%	16.6%	14.4%	8.1%	0.9%	7967
Valledupar	58.2%	16.0%	15.4%	8.7%	1.7%	4932
Vaupés	49.5%	19.8%	15.7%	13.4%	1.6%	440
Vichada	58.4%	16.6%	12.4%	9.3%	3.3%	788
Villavicencio	65.0%	14.8%	12.1%	7.1%	1.0%	5050
Yopal	60.9%	16.9%	13.0%	8.5%	0.7%	1891
Yumbo	60.1%	17.4%	15.8%	6.0%	0.6%	1259
Zipaquirá	69.5%	12.2%	12.2%	5.7%	0.3%	1260
Colombia	60.2%	16.2%	14.1%	8.2%	1.3%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 39.

Un equipo de motociclismo tiene 4 pilotos.



Juan **Dario** **Mónica** **Andrea**

¿De cuántas formas diferentes se puede organizar el equipo para que solamente participen 2 pilotos durante una carrera?

A. 6
B. 8
C. 12
D. 16

• Estructura

Competencia	Razonamiento
Componente	Aleatorio
Afirmación	Establecer, mediante combinaciones o permutaciones sencillas, el número de elementos de un conjunto en un contexto aleatorio.
Nivel de desempeño	Avanzado
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	45.9%	27.9%	10.5%	10.7%	5.0%	736
Antioquia	48.1%	31.8%	10.7%	8.1%	1.4%	24803
Apartadó	47.3%	30.6%	11.7%	9.2%	1.2%	1444
Arauca	47.9%	32.4%	11.3%	7.7%	0.6%	2691
Armenia	48.8%	31.9%	11.8%	6.5%	1.1%	2231
Atlántico	44.9%	30.9%	10.9%	11.1%	2.2%	5606
Barrancabermeja	49.5%	28.7%	13.0%	7.8%	1.0%	2152
Barranquilla	48.3%	31.8%	11.2%	7.6%	1.1%	11002
Bello	51.2%	30.7%	10.1%	7.1%	0.9%	4003
Bogotá, D.C.	50.0%	30.7%	11.8%	6.4%	1.1%	59884
Bolívar	42.6%	30.4%	12.4%	12.9%	1.6%	10595
Boyacá	46.1%	33.7%	11.4%	8.0%	0.8%	7882
Bucaramanga	49.2%	31.3%	12.5%	6.4%	0.6%	4495
Buenaventura	45.4%	33.0%	11.6%	8.6%	1.5%	4078
Buga	49.3%	28.9%	11.9%	8.4%	1.5%	982
Caldas	47.3%	32.5%	11.5%	7.7%	0.9%	5432
Cali	50.0%	30.4%	11.5%	6.8%	1.4%	18250
Caquetá	46.1%	33.5%	9.9%	8.9%	1.6%	2804
Cartagena	47.7%	30.6%	11.4%	8.9%	1.4%	10090
Cartago	50.8%	32.9%	10.1%	5.8%	0.4%	1174
Casanare	46.8%	35.2%	9.7%	7.4%	0.9%	3180
Cauca	44.2%	33.9%	10.3%	10.1%	1.5%	11687
Cesar	45.7%	30.3%	12.1%	10.5%	1.4%	7427
Chocó	39.6%	30.8%	11.2%	16.0%	2.5%	3397
Chía	50.6%	30.1%	12.8%	5.8%	0.7%	1433
Ciénaga	46.2%	31.3%	9.4%	10.8%	2.3%	1356
Cundinamarca	48.0%	32.5%	11.6%	7.2%	0.7%	15056
Córdoba	44.6%	30.8%	12.4%	11.0%	1.1%	12660
Cúcuta	46.6%	33.0%	12.2%	7.4%	0.8%	6778
Dosquebradas	48.1%	36.8%	9.1%	5.8%	0.2%	1637
Duitama	49.3%	32.1%	11.2%	7.0%	0.3%	1186
Envigado	49.5%	30.8%	12.9%	6.2%	0.6%	1216
Facatativá	50.4%	31.1%	11.9%	6.3%	0.3%	1254
Florencia	45.7%	34.4%	11.5%	7.5%	1.0%	1924
Floridablanca	47.7%	32.2%	12.8%	6.7%	0.7%	2345
Fusagasugá	47.5%	31.7%	13.5%	5.3%	1.9%	1056
Girardot	47.3%	34.5%	9.6%	7.5%	1.1%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	50.6%	30.7%	11.7%	6.3%	0.6%	1425
Guainía	42.2%	34.2%	11.2%	10.1%	2.4%	465
Guaviare	44.9%	35.4%	10.3%	7.9%	1.6%	874
Huila	45.3%	34.9%	10.7%	8.2%	1.0%	7409
Ibagué	47.5%	33.2%	11.1%	7.0%	1.2%	4915
Ipiales	47.7%	32.2%	11.5%	8.0%	0.5%	1387
Itagüí	53.3%	29.4%	10.8%	6.3%	0.2%	1659
Jamundí	48.1%	33.3%	9.2%	7.7%	1.6%	1101
La Guajira	39.0%	33.0%	11.2%	15.0%	1.8%	3848
Lorica	42.3%	32.0%	13.7%	11.2%	0.8%	1276
Magangué	45.3%	30.0%	12.0%	10.8%	1.8%	1385
Magdalena	42.5%	31.2%	11.1%	13.4%	1.9%	8758
Maicao	43.3%	30.5%	11.2%	12.5%	2.4%	2125
Malambo	42.7%	31.1%	13.7%	11.6%	0.9%	1016
Manizales	47.2%	33.3%	11.4%	7.6%	0.6%	2708
Medellín	49.6%	30.2%	11.7%	7.2%	1.3%	17827
Meta	47.2%	33.1%	10.7%	8.2%	0.8%	5551
Montería	46.5%	30.9%	12.1%	9.5%	1.0%	4560
Mosquera	49.1%	29.8%	12.7%	7.5%	1.0%	1231
Nariño	44.4%	33.1%	10.7%	9.0%	2.8%	9344
Neiva	47.5%	33.6%	11.4%	6.5%	1.0%	3488
Norte de Santander	45.4%	34.0%	11.2%	8.4%	1.1%	7482
Palmira	50.8%	30.1%	11.7%	6.4%	0.9%	2732
Pasto	46.8%	33.3%	11.9%	6.8%	1.1%	3725
Pereira	50.1%	31.8%	11.0%	5.7%	1.4%	3668
Piedecuesta	47.7%	33.5%	10.8%	6.5%	1.5%	1276
Pitalito	46.6%	33.8%	11.4%	6.4%	1.7%	1503
Popayán	50.2%	32.6%	10.5%	5.6%	1.0%	2632
Putumayo	45.1%	33.5%	10.8%	9.6%	1.0%	3619
Quibdó	42.8%	31.4%	11.1%	12.0%	2.8%	1121
Quindío	51.2%	31.0%	9.8%	6.4%	1.6%	2082
Riohacha	43.6%	30.5%	12.1%	11.4%	2.4%	2439
Rionegro	49.0%	30.8%	13.0%	7.1%	0.1%	998
Risaralda	47.6%	31.8%	10.5%	8.5%	1.6%	2443
Sabaneta	50.1%	27.7%	11.0%	8.1%	3.1%	481
Sahagún	45.5%	31.1%	12.1%	10.9%	0.4%	1176
San Andrés	50.7%	28.5%	10.7%	9.0%	1.1%	456
Santa Marta	46.4%	32.6%	11.3%	8.4%	1.4%	5713
Santander	47.8%	32.1%	11.7%	7.6%	0.9%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	48.5%	31.6%	10.2%	8.9%	0.8%	2979
Soacha	51.3%	32.1%	10.3%	5.4%	0.8%	5332
Sogamoso	50.4%	31.4%	11.4%	6.5%	0.3%	1355
Soledad	48.7%	30.2%	12.3%	7.5%	1.3%	4980
Sucre	43.6%	30.7%	12.5%	12.1%	1.2%	7540
Tolima	45.6%	33.5%	11.1%	8.8%	0.9%	9164
Tuluá	47.2%	34.5%	10.7%	7.3%	0.3%	2044
Tumaco	41.6%	30.4%	11.7%	14.0%	2.3%	2343
Tunja	50.3%	30.2%	13.1%	5.9%	0.4%	1637
Turbo	45.4%	30.7%	12.5%	10.1%	1.3%	2128
Uribia	36.4%	29.6%	12.4%	18.4%	3.3%	1279
Valle del Cauca	48.3%	33.9%	10.0%	6.8%	1.0%	7967
Valledupar	46.0%	30.6%	12.7%	9.3%	1.4%	4932
Vaupés	36.1%	34.1%	12.0%	16.8%	0.9%	440
Vichada	40.1%	36.8%	8.5%	11.8%	2.8%	788
Villavicencio	47.2%	33.6%	11.8%	6.3%	1.1%	5050
Yopal	49.4%	31.5%	12.2%	6.2%	0.7%	1891
Yumbo	49.7%	32.2%	10.5%	6.4%	1.1%	1259
Zipaquirá	50.6%	30.0%	12.8%	6.1%	0.5%	1260
Colombia	47.3%	31.8%	11.4%	8.3%	1.2%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 40.

En un club, los empleados pueden disponer de una hora y media de tiempo para almorzar. ¿Cuál es el tiempo máximo del que pueden disponer los empleados del club para almorzar?

A. 30 minutos.
B. 60 minutos.
C. 75 minutos.
D. 90 minutos.

• Estructura

Competencia	Comunicación
Componente	Espacial - Métrico
Afirmación	Identificar unidades tanto estandarizadas como no convencionales apropiadas para diferentes mediciones y establecer relaciones entre ellas.
Nivel de desempeño	Avanzado
Respuesta Correcta	D

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	34.8%	24.2%	13.9%	21.7%	5.4%	736
Antioquia	28.7%	21.0%	13.1%	35.7%	1.5%	24803
Apartadó	29.8%	24.4%	15.2%	29.3%	1.4%	1444
Arauca	27.5%	21.9%	11.0%	38.7%	0.9%	2691
Armenia	28.2%	22.1%	13.7%	34.8%	1.3%	2231
Atlántico	29.0%	21.9%	14.4%	32.6%	2.2%	5606
Barrancabermeja	23.6%	21.2%	14.7%	39.2%	1.2%	2152
Barranquilla	28.8%	19.7%	12.9%	37.4%	1.2%	11002
Bello	27.2%	19.3%	14.1%	38.5%	0.9%	4003
Bogotá, D.C.	25.3%	17.7%	12.1%	43.8%	1.1%	59884
Bolívar	28.9%	24.3%	16.4%	28.3%	2.1%	10595
Boyacá	25.9%	19.8%	12.5%	41.0%	1.0%	7882
Bucaramanga	23.4%	17.1%	10.9%	47.8%	0.7%	4495
Buenaventura	31.6%	20.8%	10.1%	35.9%	1.5%	4078
Buga	30.1%	19.6%	11.8%	37.0%	1.5%	982
Caldas	29.2%	19.6%	12.0%	38.3%	0.9%	5432
Cali	30.8%	18.6%	11.7%	37.5%	1.4%	18250
Caquetá	29.1%	18.6%	12.6%	37.7%	2.0%	2804
Cartagena	28.7%	21.2%	13.0%	35.5%	1.6%	10090
Cartago	27.7%	21.1%	13.5%	37.0%	0.8%	1174
Casanare	30.6%	21.8%	12.3%	34.1%	1.2%	3180
Cauca	31.9%	19.2%	9.7%	37.5%	1.5%	11687
Cesar	26.6%	21.4%	13.4%	36.8%	1.8%	7427
Chocó	28.3%	20.3%	12.9%	35.6%	2.9%	3397
Chía	22.4%	16.4%	11.5%	49.0%	0.7%	1433
Ciénaga	25.7%	23.5%	12.7%	35.3%	2.9%	1356
Cundinamarca	25.1%	18.9%	12.4%	42.7%	0.9%	15056
Córdoba	29.0%	22.9%	15.0%	31.6%	1.5%	12660
Cúcuta	27.0%	18.7%	13.6%	39.9%	0.8%	6778
Dosquebradas	27.8%	19.2%	11.1%	41.5%	0.4%	1637
Duitama	20.0%	17.9%	12.9%	48.7%	0.5%	1186
Envigado	21.9%	13.7%	12.1%	52.0%	0.4%	1216
Facatativá	25.0%	19.1%	12.7%	42.7%	0.4%	1254
Florencia	29.5%	22.1%	13.9%	33.3%	1.1%	1924
Floridablanca	20.7%	16.6%	12.6%	49.4%	0.7%	2345
Fusagasugá	24.5%	18.4%	10.7%	44.2%	2.2%	1056
Girardot	30.7%	20.6%	12.7%	35.1%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	27.5%	19.5%	12.1%	40.1%	0.7%	1425
Guainía	32.7%	21.9%	14.2%	28.4%	2.8%	465
Guaviare	29.7%	22.8%	13.7%	31.8%	1.9%	874
Huila	30.1%	19.9%	12.1%	36.8%	1.0%	7409
Ibagué	25.7%	19.0%	12.7%	41.4%	1.2%	4915
Ipiales	31.6%	19.3%	11.0%	37.6%	0.6%	1387
Itagüí	29.9%	21.0%	14.7%	33.9%	0.4%	1659
Jamundí	34.1%	21.6%	13.8%	28.6%	1.9%	1101
La Guajira	27.8%	20.1%	14.0%	36.0%	2.2%	3848
Lorica	31.3%	22.8%	15.2%	29.6%	1.1%	1276
Magangué	32.3%	23.8%	13.6%	27.8%	2.5%	1385
Magdalena	28.2%	21.0%	13.9%	34.4%	2.5%	8758
Maicao	31.1%	20.9%	15.1%	30.0%	2.9%	2125
Malambo	23.7%	19.3%	11.7%	44.3%	1.0%	1016
Manizales	26.7%	19.3%	11.9%	41.4%	0.7%	2708
Medellín	26.7%	21.9%	15.0%	34.9%	1.5%	17827
Meta	28.5%	21.9%	13.4%	35.3%	1.0%	5551
Montería	29.3%	23.7%	15.1%	30.7%	1.2%	4560
Mosquera	27.4%	18.9%	10.7%	42.2%	0.8%	1231
Nariño	30.5%	16.9%	9.8%	40.0%	2.8%	9344
Neiva	30.1%	18.1%	12.4%	38.1%	1.2%	3488
Norte de Santander	27.1%	18.6%	11.5%	41.6%	1.1%	7482
Palmira	28.4%	19.3%	12.5%	38.9%	1.0%	2732
Pasto	33.0%	18.8%	10.5%	36.4%	1.2%	3725
Pereira	30.2%	18.5%	10.7%	39.3%	1.3%	3668
Piedecuesta	23.1%	19.2%	14.0%	42.3%	1.3%	1276
Pitalito	30.1%	18.5%	12.4%	37.1%	1.9%	1503
Popayán	27.7%	19.4%	11.7%	40.3%	0.9%	2632
Putumayo	32.8%	21.4%	12.5%	32.0%	1.3%	3619
Quibdó	30.5%	21.8%	11.2%	33.5%	3.0%	1121
Quindío	29.8%	21.0%	12.7%	35.3%	1.3%	2082
Riohacha	29.4%	20.7%	13.2%	34.0%	2.6%	2439
Rionegro	25.2%	23.1%	13.9%	37.3%	0.5%	998
Risaralda	28.8%	21.2%	12.5%	35.6%	1.8%	2443
Sabaneta	21.4%	16.4%	12.1%	47.0%	3.1%	481
Sahagún	29.5%	21.9%	14.5%	33.5%	0.5%	1176
San Andrés	30.9%	27.2%	14.9%	24.6%	2.4%	456
Santa Marta	27.2%	21.1%	13.9%	36.2%	1.5%	5713
Santander	25.9%	18.5%	11.4%	43.3%	0.9%	7595
Sincelejo	30.2%	21.2%	14.7%	32.7%	1.1%	2979

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Soacha	28.5%	20.1%	12.1%	38.1%	1.1%	5332
Sogamoso	24.4%	17.0%	11.7%	46.3%	0.5%	1355
Soledad	25.6%	20.3%	12.8%	39.6%	1.8%	4980
Sucre	30.3%	22.9%	14.1%	31.2%	1.5%	7540
Tolima	30.0%	20.8%	13.0%	34.9%	1.3%	9164
Tuluá	30.3%	19.7%	13.6%	35.9%	0.6%	2044
Tumaco	28.5%	24.5%	14.0%	30.5%	2.5%	2343
Tunja	19.6%	17.6%	13.0%	49.2%	0.5%	1637
Turbo	32.0%	24.9%	15.0%	26.2%	1.9%	2128
Uribia	33.2%	21.4%	15.3%	26.6%	3.5%	1279
Valle del Cauca	30.5%	20.6%	13.4%	34.3%	1.2%	7967
Valledupar	27.4%	19.1%	12.5%	39.2%	1.8%	4932
Vaupés	41.1%	21.4%	12.3%	23.6%	1.6%	440
Vichada	33.1%	22.7%	13.1%	27.8%	3.3%	788
Villavicencio	25.3%	18.1%	13.0%	42.4%	1.2%	5050
Yopal	28.5%	21.2%	14.6%	35.2%	0.6%	1891
Yumbo	36.5%	19.8%	11.2%	31.5%	1.0%	1259
Zipaquirá	26.0%	19.0%	9.8%	44.4%	0.8%	1260
Colombia	28.0%	20.0%	12.8%	37.8%	1.4%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 41

Observa el titular de este periódico.

PERIÓDICO

Uno de cada diez colombianos tiene televisor de pantalla plana

Dos aviones de pasajeros secuestrados por suicidas se estrellaron contra las Torres Gemelas y el Pentágono

El número que representa la información del titular del periódico es

A. $\frac{1}{10}$

B. $\frac{1}{9}$

C. 1.

D. 10.

• Estructura

Competencia	Comunicación
Componente	Aleatorio
Afirmación	Expresar grado de probabilidad de un evento, usando frecuencias o razones.
Nivel de desempeño	Mínimo
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	46.3%	14.0%	17.0%	16.8%	5.8%	736
Antioquia	59.5%	13.2%	14.6%	11.1%	1.7%	24803
Apartadó	53.4%	15.6%	17.3%	11.8%	1.9%	1444
Arauca	62.3%	10.1%	15.1%	11.3%	1.2%	2691
Armenia	66.2%	11.1%	13.1%	8.2%	1.3%	2231
Atlántico	54.4%	13.5%	16.7%	13.0%	2.4%	5606
Barrancabermeja	65.8%	12.1%	12.5%	8.2%	1.4%	2152
Barranquilla	65.8%	11.5%	13.1%	8.3%	1.3%	11002
Bello	69.0%	11.0%	11.2%	7.7%	1.0%	4003
Bogotá, D.C.	72.9%	9.5%	9.3%	7.0%	1.2%	59884
Bolívar	46.7%	16.7%	19.8%	14.6%	2.3%	10595
Boyacá	65.9%	11.3%	12.7%	9.2%	0.9%	7882
Bucaramanga	74.9%	8.9%	9.8%	5.8%	0.6%	4495
Buenaventura	60.4%	12.1%	14.8%	10.8%	1.9%	4078
Buga	65.2%	13.0%	12.0%	7.7%	2.0%	982
Caldas	65.7%	11.7%	12.4%	9.2%	0.9%	5432
Cali	68.9%	11.1%	11.1%	7.4%	1.5%	18250
Caquetá	57.2%	12.5%	16.4%	12.0%	1.9%	2804
Cartagena	61.0%	12.9%	14.1%	10.1%	1.9%	10090
Cartago	62.4%	13.6%	12.5%	10.4%	1.0%	1174
Casanare	61.2%	12.8%	14.3%	10.6%	1.1%	3180
Cauca	61.4%	11.0%	14.1%	11.9%	1.6%	11687
Cesar	54.8%	13.4%	16.3%	13.7%	1.7%	7427
Chocó	50.8%	14.5%	17.3%	14.4%	3.1%	3397
Chía	76.1%	8.8%	8.8%	5.4%	0.8%	1433
Ciénaga	55.0%	10.8%	16.7%	15.1%	2.3%	1356
Cundinamarca	69.1%	10.4%	11.0%	8.6%	0.9%	15056
Córdoba	49.3%	16.4%	18.6%	13.9%	1.9%	12660
Cúcuta	67.8%	10.8%	12.9%	7.7%	0.8%	6778
Dosquebradas	71.6%	8.9%	10.8%	8.1%	0.7%	1637
Duitama	73.7%	9.4%	11.0%	5.5%	0.5%	1186
Envigado	75.7%	8.6%	11.0%	4.1%	0.6%	1216
Facatativá	73.6%	9.3%	10.4%	6.0%	0.6%	1254
Florencia	60.2%	13.2%	14.8%	10.0%	1.8%	1924
Floridablanca	77.0%	8.6%	8.6%	5.3%	0.5%	2345
Fusagasugá	74.2%	9.1%	8.6%	5.9%	2.2%	1056
Girardot	63.3%	11.7%	14.2%	9.9%	0.9%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	69.1%	10.9%	11.2%	8.0%	0.8%	1425
Guainía	48.4%	16.6%	17.4%	15.1%	2.6%	465
Guaviare	54.7%	13.5%	15.9%	14.0%	1.9%	874
Huila	64.5%	11.4%	12.5%	10.4%	1.2%	7409
Ibagué	68.3%	11.2%	11.2%	7.9%	1.4%	4915
Ipiales	66.3%	11.0%	13.8%	8.3%	0.6%	1387
Itagüí	65.3%	13.6%	13.2%	7.2%	0.7%	1659
Jamundí	57.6%	14.4%	15.1%	10.8%	2.2%	1101
La Guajira	54.6%	14.2%	16.3%	12.7%	2.2%	3848
Lorica	48.5%	16.7%	18.9%	14.2%	1.7%	1276
Magangué	46.3%	16.2%	21.4%	13.6%	2.6%	1385
Magdalena	51.9%	14.0%	18.0%	13.7%	2.4%	8758
Maicao	50.3%	14.7%	17.2%	14.4%	3.4%	2125
Malambo	63.4%	12.2%	12.2%	11.1%	1.1%	1016
Manizales	71.1%	10.4%	11.0%	6.7%	0.7%	2708
Medellín	62.9%	13.5%	13.3%	8.7%	1.7%	17827
Meta	61.2%	12.2%	14.5%	11.3%	0.8%	5551
Montería	54.0%	16.7%	16.3%	11.7%	1.3%	4560
Mosquera	70.9%	9.7%	9.0%	8.7%	1.6%	1231
Nariño	65.3%	10.3%	11.8%	9.7%	2.8%	9344
Neiva	67.8%	11.0%	11.8%	8.2%	1.2%	3488
Norte de Santande	64.6%	10.5%	13.6%	10.1%	1.3%	7482
Palmira	70.1%	11.1%	10.0%	7.6%	1.2%	2732
Pasto	71.8%	9.9%	9.9%	7.0%	1.4%	3725
Pereira	70.4%	9.6%	11.3%	7.2%	1.5%	3668
Piedecuesta	70.3%	10.1%	10.3%	7.6%	1.7%	1276
Pitalito	66.8%	12.0%	10.3%	8.3%	2.6%	1503
Popayán	70.5%	10.1%	10.6%	7.9%	0.8%	2632
Putumayo	59.7%	13.1%	15.3%	10.4%	1.5%	3619
Quibdó	59.0%	11.4%	15.4%	11.2%	3.0%	1121
Quindío	64.3%	11.8%	12.1%	10.2%	1.7%	2082
Riohacha	54.6%	14.2%	15.9%	12.7%	2.7%	2439
Rionegro	71.1%	10.3%	11.0%	7.2%	0.3%	998
Risaralda	61.6%	10.9%	14.3%	11.2%	1.9%	2443
Sabaneta	75.7%	7.5%	7.9%	5.8%	3.1%	481
Sahagún	58.2%	12.8%	16.7%	11.2%	1.0%	1176
San Andrés	47.6%	17.3%	20.0%	14.0%	1.1%	456
Santa Marta	63.2%	12.2%	13.1%	9.9%	1.6%	5713
Santander	70.1%	9.2%	11.1%	8.7%	1.0%	7595

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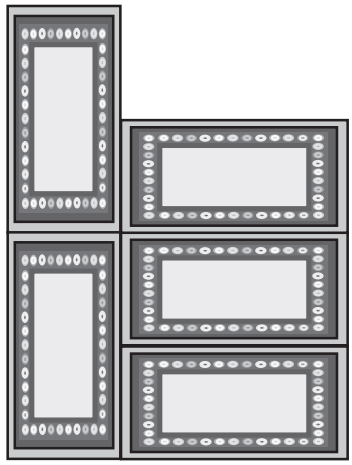
ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	57.8%	13.7%	16.1%	10.9%	1.4%	2979
Soacha	68.9%	11.7%	10.6%	7.9%	1.0%	5332
Sogamoso	74.8%	9.4%	10.4%	4.6%	0.7%	1355
Soledad	66.9%	11.7%	12.0%	7.7%	1.7%	4980
Sucre	50.0%	14.8%	19.1%	14.4%	1.7%	7540
Tolima	58.0%	13.3%	15.4%	11.9%	1.4%	9164
Tuluá	69.6%	10.1%	10.9%	8.7%	0.6%	2044
Tumaco	45.5%	17.0%	18.1%	16.6%	2.8%	2343
Tunja	75.3%	8.6%	10.0%	5.6%	0.5%	1637
Turbo	47.0%	16.4%	19.6%	15.0%	2.0%	2128
Uribia	39.1%	17.3%	23.1%	16.3%	4.2%	1279
Valle del Cauca	63.3%	12.9%	13.2%	9.2%	1.4%	7967
Valledupar	63.4%	11.0%	13.3%	10.6%	1.7%	4932
Vaupés	43.9%	17.0%	15.7%	21.6%	1.8%	440
Vichada	54.3%	10.9%	17.1%	14.3%	3.3%	788
Villavicencio	70.9%	9.6%	10.7%	7.6%	1.2%	5050
Yopal	64.3%	12.2%	13.0%	9.6%	0.9%	1891
Yumbo	62.1%	14.9%	13.3%	8.7%	1.1%	1259
Zipaquirá	72.9%	10.6%	9.8%	6.1%	0.6%	1260
Colombia	63.6%	11.9%	13.2%	9.7%	1.5%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 42.

Juana cubrió totalmente el piso de su habitación con tapetes iguales, cada uno de 2 m^2 de área.



¿Cuál es el área del piso de la habitación de Juana?

A. 10 m^2

B. 6 m^2

C. 5 m^2

D. 2 m^2

• Estructura

Competencia	Resolución
Componente	Espacial - Métrico
Afirmación	Usar representaciones geométricas y establecer relaciones entre ellas para solucionar problemas.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	29.2%	17.7%	24.2%	23.6%	5.3%	736
Antioquia	47.4%	13.8%	20.6%	16.6%	1.6%	24803
Apartadó	41.3%	13.4%	22.7%	20.7%	1.9%	1444
Arauca	51.1%	12.1%	20.2%	15.9%	0.7%	2691
Armenia	50.8%	15.4%	19.7%	12.6%	1.5%	2231
Atlántico	42.1%	13.4%	22.2%	19.7%	2.5%	5606
Barrancabermeja	52.3%	12.5%	19.3%	14.3%	1.6%	2152
Barranquilla	52.1%	12.1%	19.5%	14.9%	1.4%	11002
Bello	54.2%	13.9%	18.2%	12.5%	1.1%	4003
Bogotá, D.C.	60.8%	11.3%	16.1%	10.4%	1.3%	59884
Bolívar	35.3%	14.7%	26.6%	20.9%	2.4%	10595
Boyacá	58.4%	11.8%	16.8%	12.0%	1.0%	7882
Bucaramanga	64.0%	10.5%	15.1%	9.8%	0.5%	4495
Buenaventura	42.0%	12.0%	22.1%	22.4%	1.6%	4078
Buga	51.6%	14.1%	20.2%	12.7%	1.4%	982
Caldas	49.7%	12.0%	21.9%	15.4%	1.0%	5432
Cali	54.1%	12.6%	18.2%	13.6%	1.5%	18250
Caquetá	46.7%	11.9%	19.7%	19.7%	2.0%	2804
Cartagena	44.9%	14.6%	21.1%	17.6%	1.8%	10090
Cartago	52.3%	14.7%	18.0%	14.5%	0.5%	1174
Casanare	52.5%	12.4%	18.1%	15.4%	1.6%	3180
Cauca	45.3%	11.6%	20.2%	21.1%	1.8%	11687
Cesar	42.9%	14.0%	22.5%	18.8%	2.0%	7427
Chocó	34.0%	13.0%	24.5%	25.5%	3.0%	3397
Chía	64.3%	10.5%	15.1%	9.4%	0.7%	1433
Ciénaga	42.6%	13.0%	20.9%	20.9%	2.7%	1356
Cundinamarca	59.2%	11.1%	17.0%	11.8%	0.9%	15056
Córdoba	36.7%	15.7%	24.4%	21.2%	2.0%	12660
Cúcuta	56.1%	12.1%	18.5%	12.3%	1.0%	6778
Dosquebradas	56.0%	11.9%	18.4%	13.3%	0.4%	1637
Duitama	63.7%	12.1%	16.9%	7.0%	0.3%	1186
Envigado	64.7%	11.3%	14.8%	8.5%	0.7%	1216
Facatativá	58.3%	12.3%	17.7%	11.1%	0.6%	1254
Florencia	48.3%	11.6%	20.9%	17.8%	1.5%	1924
Floridablanca	65.8%	10.5%	15.5%	7.5%	0.8%	2345
Fusagasugá	58.1%	11.7%	16.5%	11.7%	1.9%	1056
Girardot	51.5%	14.3%	15.0%	18.2%	1.0%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	58.4%	12.2%	19.4%	9.4%	0.6%	1425
Guainía	34.8%	13.5%	22.6%	27.1%	1.9%	465
Guaviare	43.8%	14.0%	19.5%	20.3%	2.5%	874
Huila	51.5%	11.4%	20.5%	15.3%	1.3%	7409
Ibagué	57.5%	11.9%	17.7%	11.6%	1.3%	4915
Ipiales	53.5%	13.6%	20.2%	12.3%	0.5%	1387
Itagüí	52.3%	15.2%	20.2%	11.9%	0.4%	1659
Jamundí	40.9%	14.8%	21.3%	21.4%	1.6%	1101
La Guajira	42.6%	13.1%	22.4%	19.9%	2.0%	3848
Lorica	39.0%	14.4%	26.1%	19.0%	1.4%	1276
Magangué	35.0%	16.5%	26.2%	19.5%	2.8%	1385
Magdalena	38.6%	12.8%	23.4%	22.9%	2.3%	8758
Maicao	36.5%	13.9%	24.8%	21.3%	3.5%	2125
Malambo	52.0%	11.2%	20.0%	15.9%	0.9%	1016
Manizales	58.1%	12.5%	18.8%	9.7%	0.9%	2708
Medellín	50.5%	15.1%	19.5%	13.3%	1.6%	17827
Meta	48.6%	14.4%	19.3%	16.8%	0.9%	5551
Montería	40.4%	16.6%	23.3%	17.9%	1.8%	4560
Mosquera	60.0%	10.9%	17.6%	10.6%	1.0%	1231
Nariño	49.7%	10.8%	18.7%	17.9%	2.9%	9344
Neiva	55.4%	11.9%	19.4%	11.9%	1.3%	3488
Norte de Santander	52.2%	11.8%	19.8%	14.9%	1.4%	7482
Palmira	56.6%	11.3%	18.3%	12.5%	1.2%	2732
Pasto	58.0%	11.4%	18.1%	11.2%	1.3%	3725
Pereira	55.1%	11.8%	18.2%	13.1%	1.8%	3668
Piedecuesta	58.5%	13.6%	16.9%	9.3%	1.6%	1276
Pitalito	50.9%	10.9%	21.8%	14.4%	2.1%	1503
Popayán	56.2%	11.4%	18.7%	12.7%	1.0%	2632
Putumayo	46.4%	13.5%	21.2%	17.6%	1.4%	3619
Quibdó	42.5%	13.7%	22.9%	17.3%	3.6%	1121
Quindío	52.4%	11.6%	20.8%	13.5%	1.6%	2082
Riohacha	40.3%	12.7%	23.7%	20.1%	3.2%	2439
Rionegro	56.6%	13.8%	19.7%	9.5%	0.3%	998
Risaralda	50.3%	11.6%	21.4%	14.8%	1.8%	2443
Sabaneta	65.3%	7.9%	16.4%	7.3%	3.1%	481
Sahagún	44.7%	14.5%	22.9%	17.3%	0.6%	1176
San Andrés	36.4%	19.1%	18.4%	23.7%	2.4%	456
Santa Marta	48.5%	12.1%	19.8%	17.9%	1.8%	5713
Santander	58.3%	10.8%	17.0%	12.8%	1.1%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	42.9%	14.1%	23.3%	18.4%	1.2%	2979
Soacha	56.4%	12.4%	17.7%	12.5%	1.0%	5332
Sogamoso	63.6%	12.5%	15.6%	7.6%	0.7%	1355
Soledad	53.1%	12.5%	18.2%	14.4%	1.8%	4980
Sucre	37.1%	14.5%	24.9%	21.8%	1.7%	7540
Tolima	48.5%	13.6%	20.9%	15.8%	1.3%	9164
Tuluá	54.5%	12.2%	19.0%	13.8%	0.5%	2044
Tumaco	28.5%	16.5%	26.0%	25.8%	3.2%	2343
Tunja	65.2%	10.9%	14.2%	9.2%	0.5%	1637
Turbo	32.5%	15.2%	25.6%	24.9%	1.8%	2128
Uribia	28.4%	16.0%	26.8%	25.0%	3.8%	1279
Valle del Cauca	49.4%	13.1%	21.3%	14.9%	1.3%	7967
Valledupar	50.8%	11.8%	19.8%	15.7%	1.8%	4932
Vaupés	27.0%	14.3%	28.4%	28.6%	1.6%	440
Vichada	41.2%	12.9%	22.2%	19.7%	3.9%	788
Villavicencio	58.8%	12.2%	15.8%	11.8%	1.4%	5050
Yopal	49.3%	15.9%	19.5%	14.3%	1.0%	1891
Yumbo	50.2%	11.8%	19.1%	17.4%	1.5%	1259
Zipaquirá	63.6%	11.0%	16.1%	8.7%	0.6%	1260
Colombia	50.8%	12.7%	19.7%	15.2%	1.5%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

• Pregunta 43.

Un número perfecto es un número natural igual a la suma de sus divisores sin incluirse él mismo. Por ejemplo, 6 es un número perfecto porque 6 = 1+2+3.

Los divisores de 28 son 1, 2, 4, 7, 14 y 28. ¿Por qué 28 es un número perfecto?

A. Porque 28 = 1 + 2 + 4 + 7 + 14.

B. Porque 28 = 7 + 7 + 7 + 7.

C. Porque 28 = 4 x 7.

D. Porque 28 = 2 x 2 x 7.

• Estructura

Competencia	Razonamiento
Componente	Numérico - Variacional
Afirmación	Justificar propiedades y relaciones numéricas usando ejemplos y contraejemplos.
Nivel de desempeño	Satisfactorio
Respuesta Correcta	A

• Resultados a nivel nacional y de Entidad Territorial Certificada (ETC)

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Amazonas	37.2%	25.0%	19.3%	13.5%	5.0%	736
Antioquia	47.5%	21.4%	17.3%	12.1%	1.7%	24803
Apartadó	44.8%	22.2%	16.2%	15.2%	1.5%	1444
Arauca	49.2%	20.7%	18.9%	10.6%	0.7%	2691
Armenia	48.7%	22.0%	15.8%	12.2%	1.3%	2231
Atlántico	46.6%	21.3%	17.3%	12.3%	2.5%	5606
Barrancabermeja	50.0%	20.7%	15.9%	11.9%	1.6%	2152
Barranquilla	51.0%	20.3%	16.7%	10.8%	1.2%	11002
Bello	50.0%	22.1%	15.8%	11.3%	0.8%	4003
Bogotá, D.C.	53.1%	21.3%	14.9%	9.4%	1.4%	59884
Bolívar	43.7%	21.2%	19.2%	13.8%	2.0%	10595
Boyacá	48.9%	20.8%	18.4%	10.8%	1.2%	7882
Bucaramanga	55.5%	19.4%	15.4%	9.0%	0.7%	4495
Buenaventura	51.8%	20.6%	15.4%	10.4%	1.7%	4078
Buga	47.7%	20.5%	21.2%	9.5%	1.2%	982
Caldas	49.6%	21.9%	18.0%	9.4%	1.0%	5432
Cali	52.7%	21.0%	15.3%	9.4%	1.5%	18250
Caquetá	49.3%	20.1%	18.0%	10.4%	2.1%	2804
Cartagena	51.3%	20.1%	15.2%	11.5%	1.8%	10090
Cartago	46.8%	22.9%	17.9%	11.8%	0.6%	1174
Casanare	48.7%	20.6%	18.6%	10.7%	1.5%	3180
Cauca	52.3%	20.3%	16.7%	8.9%	1.7%	11687
Cesar	48.5%	19.8%	18.0%	12.0%	1.7%	7427
Chocó	46.7%	20.3%	18.4%	11.9%	2.6%	3397
Chía	54.9%	21.1%	13.5%	9.6%	0.9%	1433
Ciénaga	47.6%	22.8%	16.9%	10.3%	2.5%	1356
Cundinamarca	50.8%	21.2%	17.0%	10.1%	1.0%	15056
Córdoba	43.8%	21.3%	19.4%	13.9%	1.6%	12660
Cúcuta	50.1%	20.8%	16.8%	11.4%	0.8%	6778
Dosquebradas	52.2%	22.7%	15.8%	8.8%	0.6%	1637
Duitama	51.4%	22.8%	15.4%	9.8%	0.5%	1186
Envigado	53.5%	21.1%	13.7%	11.4%	0.4%	1216
Facatativá	53.7%	20.3%	15.1%	10.0%	0.9%	1254
Florencia	47.4%	22.8%	17.8%	10.8%	1.2%	1924
Floridablanca	54.1%	21.7%	14.8%	8.6%	0.7%	2345
Fusagasugá	50.9%	23.1%	13.5%	10.2%	2.2%	1056
Girardot	48.8%	19.8%	19.5%	10.6%	1.2%	907

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Girón	50.2%	22.3%	16.4%	10.5%	0.6%	1425
Guainía	47.3%	19.6%	18.5%	12.5%	2.2%	465
Guaviare	43.9%	23.2%	19.2%	11.7%	1.9%	874
Huila	50.1%	21.0%	17.8%	9.9%	1.3%	7409
Ibagué	50.0%	20.8%	16.2%	11.6%	1.4%	4915
Ipiales	50.1%	20.3%	19.0%	9.9%	0.7%	1387
Itagüí	43.5%	22.2%	19.2%	14.1%	0.9%	1659
Jamundí	46.0%	23.0%	19.0%	9.4%	2.6%	1101
La Guajira	51.2%	18.3%	16.7%	11.9%	1.9%	3848
Lorica	41.4%	21.5%	21.3%	14.5%	1.3%	1276
Magangué	43.0%	22.0%	18.8%	13.9%	2.2%	1385
Magdalena	47.2%	19.4%	18.5%	12.5%	2.4%	8758
Maicao	43.2%	21.1%	18.5%	14.4%	2.9%	2125
Malambo	55.7%	17.0%	13.9%	12.5%	0.9%	1016
Manizales	47.7%	21.6%	17.9%	11.9%	0.9%	2708
Medellín	44.9%	22.9%	17.8%	13.0%	1.5%	17827
Meta	46.8%	22.5%	17.9%	12.0%	0.9%	5551
Montería	44.5%	22.0%	18.1%	14.0%	1.4%	4560
Mosquera	51.1%	22.5%	15.0%	10.6%	0.8%	1231
Nariño	53.3%	19.5%	16.1%	8.3%	2.8%	9344
Neiva	51.5%	21.4%	15.5%	10.3%	1.2%	3488
Norte de Santander	50.4%	20.1%	18.1%	10.1%	1.3%	7482
Palmira	51.1%	20.5%	16.4%	10.8%	1.2%	2732
Pasto	48.9%	21.0%	18.7%	10.1%	1.4%	3725
Pereira	51.4%	21.8%	16.0%	9.0%	1.8%	3668
Piedecuesta	50.0%	21.0%	16.2%	11.1%	1.7%	1276
Pitalito	50.0%	19.5%	19.2%	9.2%	2.2%	1503
Popayán	50.3%	21.8%	16.9%	9.9%	1.1%	2632
Putumayo	45.5%	23.2%	19.0%	10.8%	1.7%	3619
Quibdó	48.2%	16.5%	18.8%	12.7%	3.8%	1121
Quindío	46.5%	21.7%	17.9%	12.2%	1.7%	2082
Riohacha	46.0%	21.4%	18.2%	12.0%	2.5%	2439
Rionegro	49.5%	22.5%	17.1%	10.2%	0.6%	998
Risaralda	47.0%	21.5%	18.7%	11.1%	1.7%	2443
Sabaneta	52.8%	19.8%	16.4%	7.9%	3.1%	481
Sahagún	45.9%	21.9%	19.3%	12.2%	0.8%	1176
San Andrés	40.6%	25.4%	17.5%	14.7%	1.8%	456
Santa Marta	50.9%	20.6%	16.3%	10.7%	1.6%	5713
Santander	51.6%	19.1%	18.0%	10.3%	1.1%	7595

Continúa en la siguiente página

ETC/País	A	B	C	D	Omisión y multimarca	N° estudiantes
Sincelejo	48.3%	20.3%	17.7%	12.9%	0.9%	2979
Soacha	51.0%	21.6%	16.2%	10.1%	1.1%	5332
Sogamoso	50.9%	23.0%	16.9%	8.6%	0.6%	1355
Soledad	53.3%	19.9%	14.9%	10.2%	1.7%	4980
Sucre	46.1%	20.9%	18.7%	12.8%	1.5%	7540
Tolima	48.2%	20.9%	18.0%	11.6%	1.3%	9164
Tuluá	50.2%	21.4%	17.4%	10.3%	0.6%	2044
Tumaco	43.1%	22.4%	18.8%	13.0%	2.7%	2343
Tunja	53.0%	20.8%	16.9%	8.7%	0.5%	1637
Turbo	41.5%	25.4%	17.7%	13.5%	1.9%	2128
Uribia	34.4%	23.0%	24.1%	14.4%	4.1%	1279
Valle del Cauca	48.6%	20.7%	17.6%	11.7%	1.4%	7967
Valledupar	51.1%	19.6%	15.8%	11.6%	1.9%	4932
Vaupés	45.0%	20.5%	23.0%	10.5%	1.1%	440
Vichada	40.5%	21.3%	23.5%	10.7%	4.1%	788
Villavicencio	52.0%	20.3%	16.3%	10.0%	1.4%	5050
Yopal	47.9%	21.9%	16.3%	12.8%	1.1%	1891
Yumbo	48.5%	22.9%	16.9%	10.4%	1.3%	1259
Zipaquirá	53.7%	18.7%	16.3%	10.1%	1.1%	1260
Colombia	49.5%	21.1%	17.0%	11.0%	1.5%	452694

*Es posible que los porcentajes mostrados no sumen exactamente 100 debido a aproximaciones decimales.

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